

Appendix 4. Computation of Reliability of the Try Out Test Formula

First, using Pearson Product Moment Correlation, the coefficient correlation between odd and even number of the items is counted.

$$r_1 = \frac{\sum xy}{\sqrt{(\sum x^2)(\sum y^2)}}$$

In which:

r_1 : coefficient of reliability between odd and even numbers items

x : odd number

y : even number

$\sum x^2$: total score of odd number items

$\sum y^2$: total score of even number items

$\sum xy$: total score of odd and even number

$$r_1 = \frac{\sum xy}{\sqrt{(\sum x^2)(\sum y^2)}}$$

$$r_1 = \frac{22983}{\sqrt{22748 \times 23634}} \quad r_1 = \frac{22983}{\sqrt{537.626.232}} = \frac{22983}{23.186,76} = 0,99$$

After getting the reliability of half test, the researcher will use Spearman Brown to determine the reliability of the whole tests, as follows:

$$r_k = \frac{2 r_1}{1 + r_1}$$

where:

r_k : the reliability of the whole tests

r_l : the reliability of half test

$$rk = \frac{2rl}{1 + rl}$$

$$rk = \frac{2 \times 0,99}{1 + 0,99} = \frac{1,98}{1,99} = 0,99$$