

Appendix 8

Reliability of Pre test

| No | Name | R1 | R2 | D | d ² |
|-------|------|----|----|----|----------------|
| 1 | ATC | 55 | 50 | 5 | 25 |
| 2 | BN | 50 | 45 | 5 | 25 |
| 3 | DA | 55 | 50 | 10 | 25 |
| 4 | DAM | 40 | 45 | 5 | 25 |
| 5 | DW | 55 | 65 | 10 | 100 |
| 6 | DIP | 60 | 60 | 0 | 0 |
| 7 | DD | 55 | 45 | 10 | 100 |
| 8 | DDM | 65 | 60 | 5 | 100 |
| 9 | ED | 50 | 60 | 10 | 100 |
| 10 | ER | 45 | 55 | 5 | 25 |
| 11 | FDH | 55 | 65 | 10 | 100 |
| 12 | FT | 65 | 60 | 5 | 25 |
| 13 | FAP | 50 | 60 | 10 | 100 |
| 14 | FD | 55 | 55 | 0 | 0 |
| 15 | JAR | 45 | 40 | 5 | 25 |
| 16 | MM | 65 | 70 | 5 | 25 |
| 17 | MP | 55 | 55 | 0 | 0 |
| 18 | MS | 50 | 60 | 10 | 100 |
| 19 | MP | 40 | 45 | 5 | 25 |
| 20 | NAP | 50 | 55 | 5 | 25 |
| 21 | NOK | 55 | 65 | 10 | 100 |
| 22 | N | 55 | 55 | 0 | 0 |
| 23 | NL | 65 | 70 | 10 | 100 |
| 24 | PA | 55 | 45 | 10 | 100 |
| 25 | RR | 65 | 60 | 5 | 25 |
| 26 | STA | 65 | 70 | 5 | 0 |
| 27 | TH | 45 | 55 | 10 | 100 |
| 28 | RS | 70 | 70 | 0 | 0 |
| 29 | TW | 65 | 70 | 5 | 25 |
| 30 | RH | 65 | 60 | 5 | 25 |
| Total | | | | | 1200 |

To measure of two raters, the researcher used Spearman Rank-Correlation which the formula can described as follows:

$$r = 1 - \frac{6 \cdot \sum d^2}{N(N^2 - 1)}$$

$$r = 1 - \frac{6(1200)}{30(30^2 - 1)}$$

$$r = 1 - \frac{7200}{26970}$$

$$r = 1 - 0.2669633$$

$$r = 0.7330367$$

Note :

r : Coefficient of rank correlation

d^2 : Square of differences of rank correlation

d : Sum differences between each pair of ranks

N : Number of Students