

## Appendices 10

### Relability of pre test and post test

Reliability of pre test

$$\begin{aligned} R &= 1 - \frac{6 \cdot \sum d^2}{N(N^2 - 1)} \\ &= 1 - \frac{6 \cdot 544}{30(30^2 - 1)} \\ &= 1 - \frac{3264}{30.899} \\ &= 1 - 0.121 \\ &= 0.879 \end{aligned}$$

It means that this pre test has a very high reliability

Reliability of post test

$$\begin{aligned} R &= 1 - \frac{6 \cdot \sum d^2}{N(N^2 - 1)} \\ &= 1 - \frac{6 \cdot 580}{30(30^2 - 1)} \\ &= 1 - \frac{3480}{30.899} \\ &= 1 - 0.129 \\ &= 0.871 \end{aligned}$$

It means that this post test has a very high reliability