

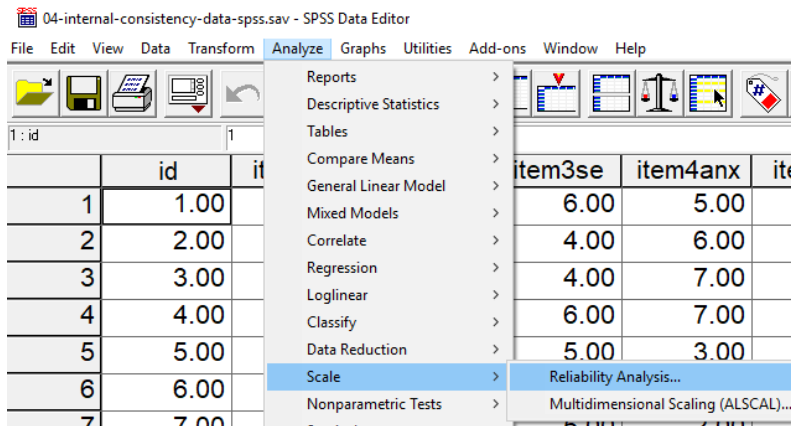
Answers

SPSS data for this activity can be found here:

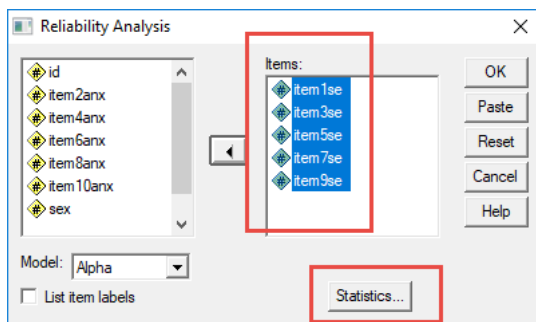
<http://www.bwgriffin.com/gsu/courses/edur8331/edur8331-activities/EDUR-8331-04-internal-consistency-data-spss.sav>

1. Dissertation Self-efficacy

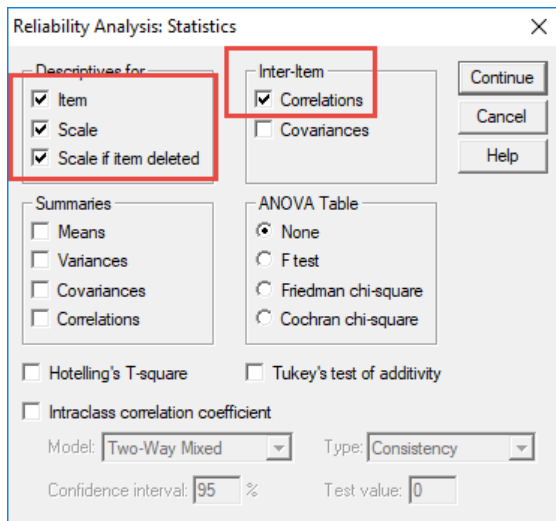
SPSS Commands: **Analyze**→**Scale**→**Reliability Analysis**



Move self-efficacy items (odd numbered items) to the Items box; then click on **Statistics** button.



Select the following item statistics, then click **Continue** then **OK** to obtain results.



SPSS Results

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.783	.796	5

Inter-Item Correlation Matrix

	item1se	item3se	item5se	item7se	item9se
item1se	1.000	.380	.692	.425	.514
item3se	.380	1.000	.524	.303	.634
item5se	.692	.524	1.000	.112	.570
item7se	.425	.303	.112	1.000	.236
item9se	.514	.634	.570	.236	1.000

The covariance matrix is calculated and used in the analysis.

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
item1se	22.1053	10.099	.666	.623	.716
item3se	22.9474	9.053	.618	.491	.721
item5se	21.9474	10.164	.611	.630	.730
item7se	23.4737	10.596	.328	.319	.825
item9se	22.7895	8.842	.650	.504	.709

Step 1

- Odd numbered items measure self-efficacy
- $\alpha = .783$
- Correlations among items are all positive which is a good sign that items are demonstrating similar response patterns
- Item-total correlations all .60+ except for item 7
- Weakest item-total correlation is item 7 with .328
- If item 7 dropped, alpha increases to $\alpha = .825$
- Item 7 slightly different in wording from others (focus on literature and theories), but item 7 represents a legitimate component of the dissertation process, so removing item 7 could threaten validity of this measure
- no compelling reason to drop item 7 since alpha is not overly affected by inclusion or removal of item 7, and since item 7 appears to be content validity, it will be retained

Step 2

- If item 7 removed, the following results:
- $\alpha = .825$
- Item-total correlations all .6+
- Stop at step 2; alpha level achieved is the highest possible with these data and self-efficacy items, but if item 7 removed, the cost could be lessened validity of the measure for self-efficacy

2. Dissertation Anxiety

Step 1

- Even numbered items measure anxiety
- $\alpha = .871$
- Can stop here, item-total correlations all .69+ except item 8 (.502), and the alpha obtained demonstrate very good internal consistency
- If item 8 removed, $\alpha = .89$, but little compelling reason to remove item 8 (unless it is redundant or one wishes to reduce number of items on questionnaire)