What is internal consistency?

It is an indicator of whether or not the items in a survey are measuring what they are intended to measure.

How does internal consistency help me?

Internal consistency is important for situations in which the items on a test/survey/questionnaire are assumed to measure the same thing. For example, if I want to measure "sense of belonging" it is essential that the items on my assessment instrument measure "sense of belonging" and don't accidentally include other constructs.

Assessment for Relevance

February Brief

Internal consistency (*a type of reliability*) is important to calculate when you want to provide strong evidence to support the use of an assessment instrument in measuring a construct (e.g. leadership ability, learning styles, sense of belonging, motivation, etc.).

To estimate internal consistency, you should use a **single assessment measure** (i.e. like a survey or questionnaire) that has been administered to a group of people **on one occasion**.

You can measure internal consistency a couple of ways:

1. *By conducting simple correlations of each item to itself and others and calculating the average mean of all the correlations. EASY!!*

   The average in the example below would be .89 (take all correlations, add up, divide by total number of correlations).

   Sense of Belonging Scale - Inter-Item Correlation

	Item 1	Item 2	Item 3	Item 4	Item 5
Item 1	1.00				
Item 2	0.88	1.00			
Item 3	0.90	0.91	1.00		
Item 4	0.89	0.9	0.92	1.00	
Item 5	0.83	0.85	0.95	0.83	1.00

   You can do this by using the drop-down menu in SPSS. Click – Analyze – Scale – Reliability Analysis

2. *Calculating Cronbach's Alpha (a) – You can do this using the same steps as above: Click – Analyze – Scale – Reliability Analysis in SPSS, then ensure Model is set as Alpha.*

Cronbach's alpha and the average inter-item correlation **range from 0 to 1**, with **higher values indicating greater internal consistency**.

Internal consistency **findings of .80 and above** are generally considered to be pretty strong. Anything **below .70**, you'd want to proceed with caution.

When evaluating your results keep in mind that your Cronbach alpha/ average inter-item correlation should be high, but **not too high**. An extremely high score could indicate that your questions are redundant or worded in a way that steers students to answer a certain way.

Email Assessment and Planning at seesassessment@odu.edu for more information or individual assistance.