

CHAPTER OVERVIEW

8: Factor Analysis and Scale Reliability

Hello everyone, and welcome to the eighth chapter of the University of Southern Queensland's online, open access textbook.

The aim of this eighth chapter is to discuss two methods to determine if individual “questions” or “test item” variables that measure a common concept or construct work together in a mathematically connected fashion. The first method we examine is factor analysis. If you recall from chapter four that correlations will estimate the amount of change shared by two variables, you can extend this logic to factor analysis because factor analysis is a way to estimate the shared change or variability between a much larger set of variables. Scale reliability analysis is another method to estimate the shared change or variability between a set of variables although the set of variables examined in scale reliability analysis is generally much smaller than what is used in factor analysis.

There are some slides that appear via links within Chapter Eight. Please look for these as you review the current chapter.

[8.1: Factor Analysis Definitions](#)

[8.2: EFA versus CFA](#)

[8.3: EFA Steps with Factor Extraction](#)

[8.4: EFA Determining the Number of Factors](#)

[8.5: EFA Interpretation](#)

[8.6: EFA Write Up](#)

[8.7: Scale Reliability](#)

[8.8: Chapter Eight Self-Test](#)

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