Guttman scaling is used when we are measuring "composite" variables such as attitudes that do not lend themselves to direct measurement. We ask several question and then assess whether there is one dimension or whether certain questions contain too many inconsistent responses.

Example of a Guttman Scale Analysis

Resp	Q1	Q2	Q3	Q4	Q5			
1	+A	+A	A	+A	+A		**MMR =**	0.8
2	+A	+A	A	A	+A			0.6
3	+A	+A	A	A	+A			0.6
4	+A	+A	A	A	**D**			0.5
5	+A	**D**	A	D	A			0.5
6	+A	A	D	D	A		3.0 / 5 =	0.60
7	+A	D	**+A**	**A**	D		**C.R. =**	1- (5/50)= 0.90
8	A	**A**	D	D	D			
9	D	D	D	D	+D		**% Improve =**	.90-.60 = 0.30
10	+D	+D	D	D	D			
%A	0.8	0.6	0.6	0.5	0.5		**C.S. =**	.30/.40 = 0.75
%D	0.2	0.4	0.4	0.5	0.5			

Guttman says that if the coefficient of scalability is greater than .5 and the Coefficient of Reproducibility is greater than .9 the questions form a scale.