MA mini-Course
Multiple Indicator Measurement
(with special reference to education and occupation)

Harry B.G. Ganzeboom

ADEKUS

Lecture 6ab: Occupation coding

The Do's and Don'ts of Occupation Coding

- See paper on website.

Lecture 6ab: occupation coding

20 rules of occupation coding

- Choosing the classification
- How to create a coding file
- Automated coding
- How to select and train coders
- How to use multiple coders
- How the coding should be done
- How to check the quality of the results
- Archiving

Coding occupations in Suriname

- 11800 occupation of fathers, mothers, siblings, resp and partners. N=2530 'families'.

- Split into 12 parcels with full overlap: each occupation is coded 2x (if all the coders do the work..).

- I made a stupid mistake by using full randomization; I should have randomized by RESPNR – so each coder does a 'full family'.

Lecture 6ab: occupation coding
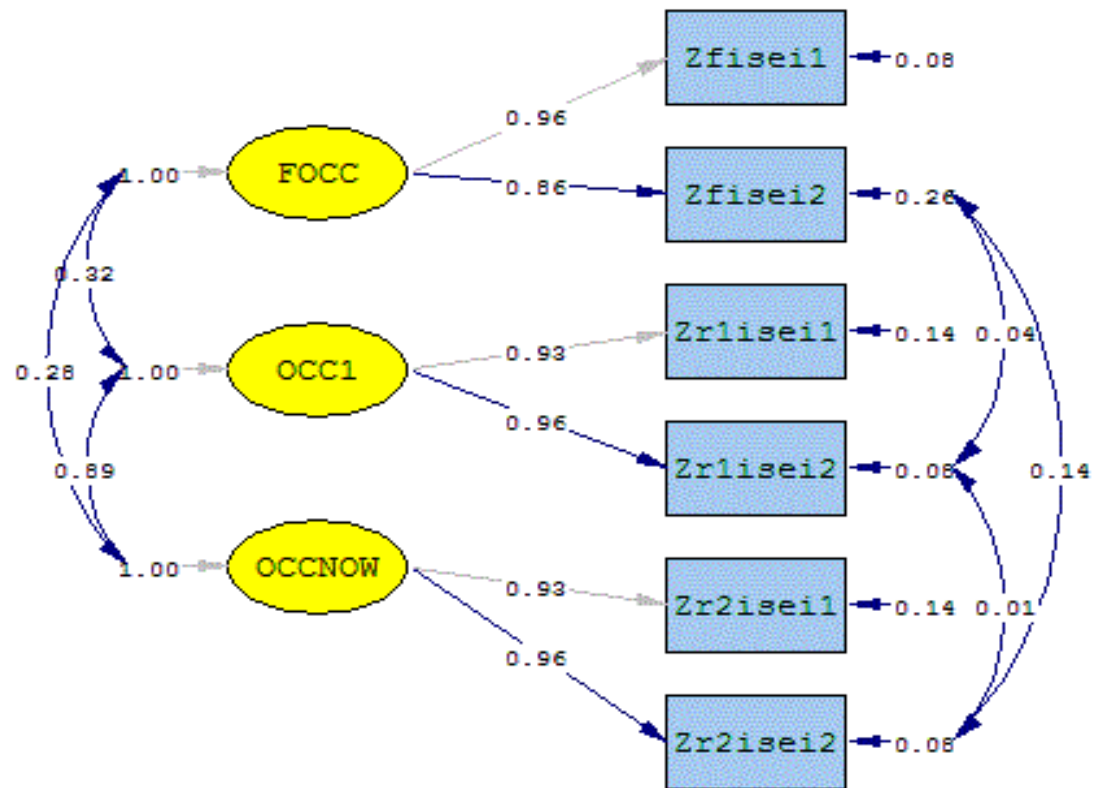
Multiple coders correlations

	fisei1	fisei2	r1isei1	r1isei2	r2isei1	r2isei2
fisei1	1.000	.806	.225	.267	.225	.188
fisei2	.806	1.000	.243	.332	.270	.380
r1isei1	.225	.243	1.000	.872	.728	.760
r1isei2	.267	.332	.872	1.000	.762	.802
r2isei1	.225	.270	.728	.762	1.000	.877
r2isei2	.188	.380	.760	.802	.877	1.000
fisei1	1300	540	785	300	767	294
fisei2	540	540	326	118	324	123
r1isei1	785	326	1407	541	1051	422
r1isei2	300	118	541	541	418	208
r2isei1	767	324	1051	418	1365	518
r2isei2	294	123	422	208	518	518

Lecture 6ab: occupation coding

Conclusions

- Average between-coded correlation is 0.81 for fathers and 0.88 for respondents.
- This is not too good, and the difference is puzzling: usually there is more agreement on proxy reports ('report on others'), in particular on parents (simpler occupational structure).
- Tamira and I will have to look at this more closely.
- If you have two alternative codes you need a third coded to do "adjudication".

Lecture 6ab: occupation coding

MTMM model

- MTMM models can separate random measurement error from systematic (=correlated) measurement error.

- The trick is to combine:
  - Multiple method (e.g., indicators, coders)
  - Multiple traits (e.g. fathers and resp occupations).

- Identification can depend upon the presence of validation criteria (e.g. education, income); nd number of methods / traits.

- The traditional approach is to combine 3 traits with 3 methods; this is not necessary in SEM modelling.

Lecture 6ab: occupation coding

Chi-Square=20.70, df=6, P-value=0.00208, RMSEA=0.070

Lecture 6ab: occupation coding