# Foreign Language Attrition and Structural Equation Modelling

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# Overview

- History of language attrition
- My own research
- What is SEM? Why is it?
- The general SEM model
- My hypothesised model

# History of language attrition

- What is language attrition?
  forgetting temporarily or losing permanently?

- What kind of language attrition?
  first or second or foreign language attrition?

- History of language attrition
  hypotheses proposed →hypotheses tested

# My own research

- English language retention or attrition by Chinese university-level learners.

  Why Chinese? Why English?

- The research question--whether the subjects' English proficiency will change or not due to no or little contact with it.

  If so (not), what are the possible contribution factors?

# My own research – experiment design

- A longitudinal study: 3 times investigation

- Test instruments:  an questionnaire
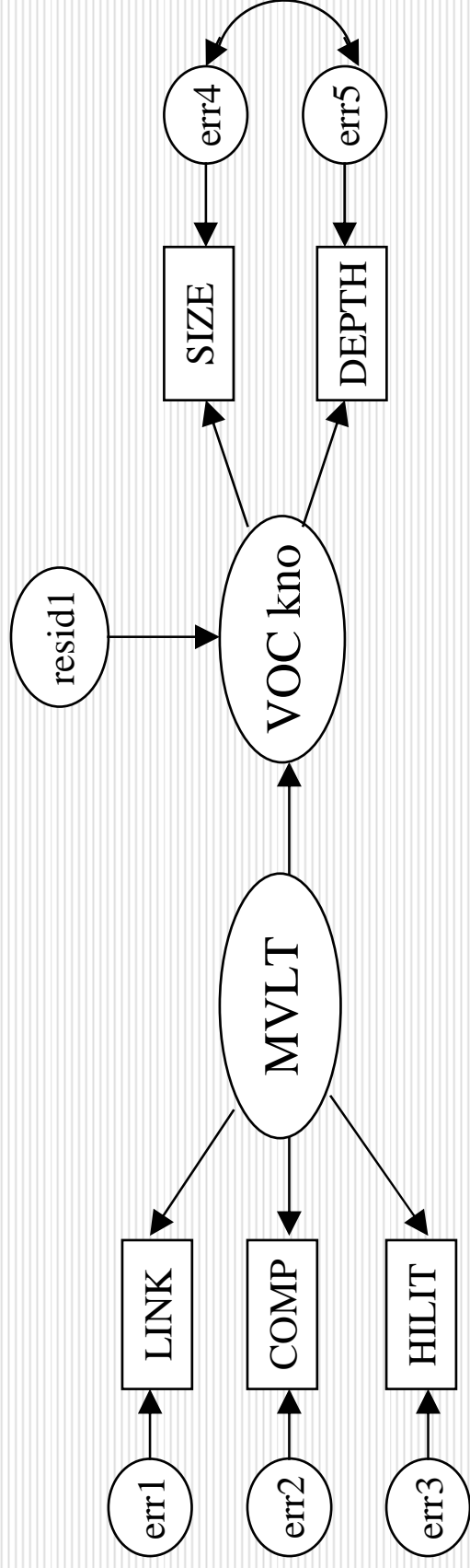  
  English proficiency tests

# What is SEM?

- SEM is a modern multivariate statistical technique, which allows a set of relationships to be examined simultaneously.

- It takes a confirmatory, rather than exploratory, approach to the data analysis.

- Researchers specify a hypothesised model based on an examination of literature and then submit the model to be empirically tested.
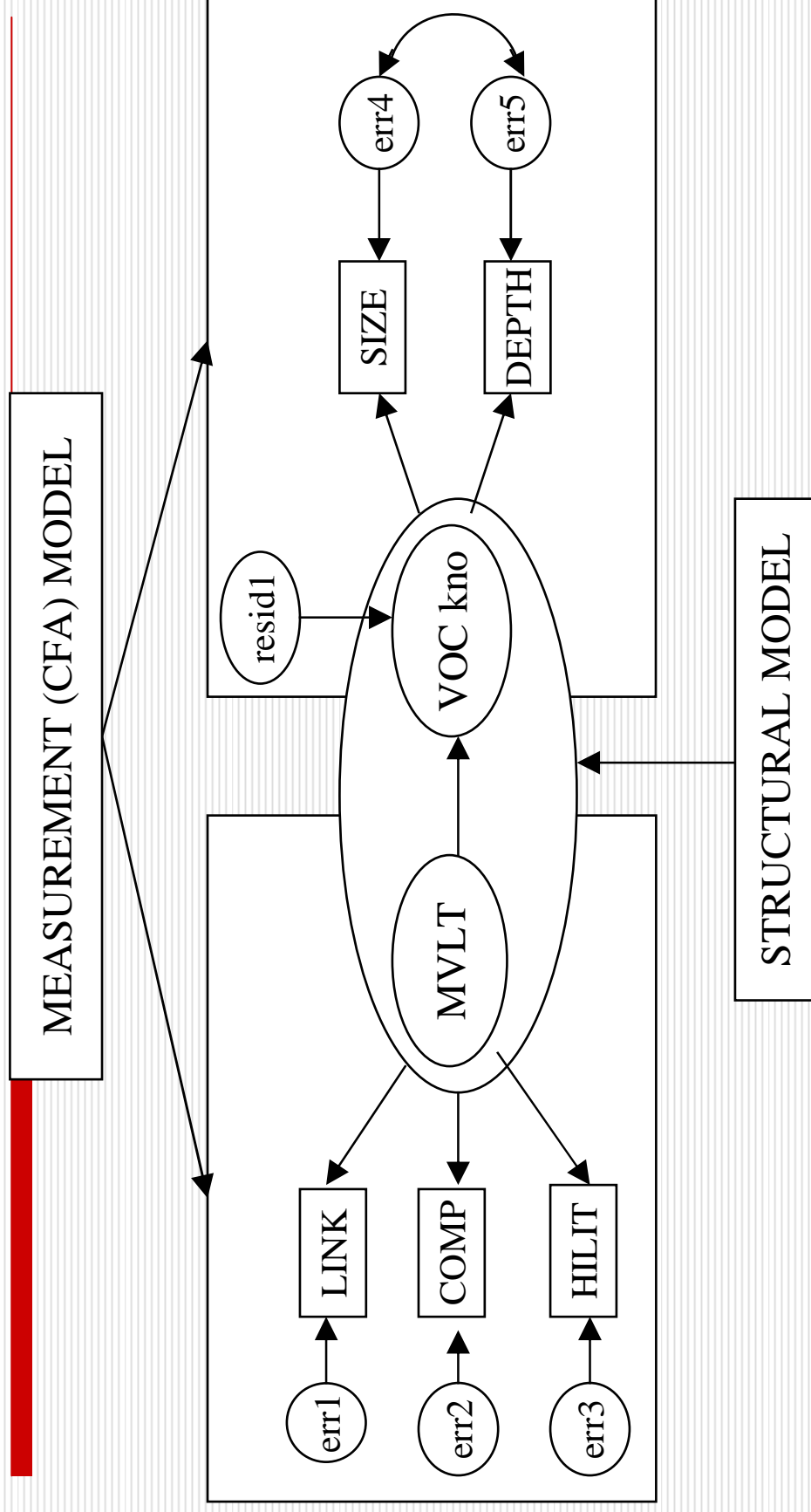
# Why is SEM?

- Measurement error in the process of model building can be identified, estimated and then removed.

- By estimating and removing measurement error, the reliability of multiple indicators can be explicitly calculated within the analysis.

- Instead of testing the hypothesised relationships one by one, all the relationships among the model are tested simultaneously.

# The general SEM model

# Basic composition



MEASUREMENT (CFA) MODEL

STRUCTURAL MODEL

err4    err5

SIZE    DEPTH

VOC kno

resid1

MVLT

LINK    COMP    HILIT

err1    err2    err3

The hypothesised model