Sign Language And Interpreter Aptitude: A Longitudinal Study

Christopher Stone and Anneka Starling

Outline of the Problem:
Most interpreters are late learners of BSL (18+ L2M2)
Many arrive in undergraduate programmes needing language tuition
Language learning and interpreter aptitude are often conflated
We need to identify how to effectively use resources

Scope of the current study:
4 year study
Catches snapshots of learning
Gives us information about before and after training
Identifies linguistic and cognitive skills required for L2M2 learning and interpreting
Enables the development of a screening test battery

Participants:
Cohort 1 - interpreters in a vocational training setting
Cohort 2 - undergraduates
Cohort 3 - expert interpreters (graduates, having achieved full professional status, ≤ 10 years experience)
Within normal range for Digit Span and Matrix Reasoning

Language tests:

L1 English reading accuracy (Vernon-Warden)

L2 Non-Sign repetition task (phonological and phonological WM)

Language tests:

L2 BSL grammaticality judgment task (based on Mayberry and Boudreault)

OLD   LIVE   WOMAN   SMALL   WHEELCHAIR   FLAT   ALONE

Study 1: Cohort 1 Phonological sensitivity

Errors handshape > movement > location (p < 0.001)

handshape: subsitution (p < 0.001)

internal movement: deletion = addition

markedness does not affect errors

correlation between phonological complexity and deletion ($F_{(1,126)} = 27.319$, $p = .000$)

Summary: Concurs with other evidence (Orfanidou et al, Mann et al) showing this is an artifact of modality not language

Further language tests:

Modern Language Aptitude Test (MLAT)

I   Number learning (WM)
II   Phonetic script (phonetic coding)
III Spelling clues (phonetic coding)
IV   Words in sentences (grammatical sensitivity)
V   Paired associates (rote learning)

Study 2: Cohort 2 Language Aptitude

Positive correlations between:

MLAT1 and AbB[*] ($p = 0.020$, $r = 0.832$)
MLAT1 and IntA[‡] ($p = 0.025$, $r = 0.812$)

MLAT total and AbB[*] ($p = 0.048$, $r = 0.734$)
MLAT total and IntA[‡] ($p = 0.020$, $r = 0.831$)

Summary: MLAT appears to predict semester two ([*]Ab initio B) and semester 3 ([‡]Intermediate A) BSL exam results.

What next?

Cohort 2 continue testing and comparing scores with exam results
understanding learning trajectory of BSL
differentiating between language learning and interpreting learning

Cohorts 2&3 comparing scores of interpreters in training with expert interpreters

Summary: Understand the difference between prerequisites and professionally developed skills

Further data and analysis:

Patterns   -   Visual acuity
Connections   -   Set shifting
PASAT   -   Auditory information processing speed and flexibility
Flanker   -   Distractibility
BIS   -   Risk taking **Summary:**