References

1. GILE, D. The Effort Models in Interpretation. In: Basic Concepts and Models for Interpreter and Translator Training. Amsterdam/Philadelphia: John Bensamins, 1995. p. 159-190.

2. NORD, C. Textanalyse und Übersetzen. Theoretische Grundlagen, Methode und didaktische Anwendung einer übersetzungsrelevanten Textanalyse. Heidelberg, 1988. ([1988] 2016).

3. POINTURIER-POURNIN, Sophie. L'interprétation en Langue des Signes Française: contraintes, tactiques, efforts. Linguistique. Université Paris 3 - Sorbonne Nouvelle, Thèse de doctorat en traductologie, 2014. Disponível em: https://tel.archives- ouvertes.fr/tel-01077924/document. Acesso em 06 jun 2025.

FINGERSPELLING IN PORTUGUESE TO BRAZILIAN SIGN LANGUAGE INTERPRETING: AN EXPERIMENTAL STUDY

Guilherme Lourenço
PhD, Full Professor at Federal University of Minas Gerais
Professor at the Faculty of Letters,
Federal University of Minas Gerais (UFMG)
Minas Gerais, Brazil

Eduardo Andrade Gomes
PhD Candidate, Federal University of Minas Gerais
Faculty of Letters,
Federal University of Minas Gerais (UFMG)
Minas Gerais, Brazil

Fingerspelling is a productive lexical strategy in sign languages and is often used to represent names, technical terms, or low-frequency lexical items. Despite its frequency in communicative interactions, fingerspelling presents unique challenges in simultaneous intermodal interpreting, particularly when rendering signed content into spoken language in real time. This complexity arises from its visual density, the transitional movements between letters, and the varying motoric demands each handshape imposes. Additionally, fingerspelled items are typically less predictable, which increases cognitive load and affects comprehension and production during interpretation.

This study investigates how three key linguistic variables—grammatical class**,** lexical frequency, and presentation speed—influence interpreters' ability to accurately and fluently render fingerspelled words from Brazilian Sign Language (Libras) into spoken Brazilian Portuguese. We adopted a factorial 2×2×3 experimental design to examine interactions between these variables. A total of 144 sentences were video recorded with a Deaf native signer, including 48 experimental sentences and 96 distractors. In each experimental sentence, a fingerspelled word followed the CV.CV.CVC structure and was positioned consistently as the fourth lexical item.

The stimuli were systematically selected from a national corpus (LexPorBR), ensuring equal representation of nouns and verbs, as well as high- and low-frequency words, each manipulated at three controlled presentation speeds (slow: 650ms per character, normal: 450ms, fast: 250ms). Prior to testing with interpreters, 21 Deaf participants evaluated the acceptability of the experimental sentences to verify linguistic naturalness and semantic coherence. While no significant effect was observed for grammatical class or speed, low-frequency words tended to receive slightly lower acceptability scores.

Subsequently, professional interpreters participated in a simultaneous interpreting task using PsychoPy software, where Libras sentences were presented randomly, and their oral output was recorded. Interpretations were analyzed based on semantic equivalence**,** omissions**,** errors, and onset time—the delay between the presentation of the fingerspelled word and the beginning of its interpretation.

Preliminary results, based on three interpreters, revealed important tendencies. Grammatical class did not significantly influence performance, though verbs showed a slight advantage over nouns. Lexical frequency, while not statistically significant, was associated with improved interpretive accuracy, especially for high-frequency items. The most salient effect came from presentation speed: fingerspelled words presented at normal and fast speeds resulted in higher rates of accurate interpretation and shorter onset times when compared to the slow condition.

These findings suggest that processing efficiency in fingerspelling is more sensitive to temporal and lexical familiarity cues than to syntactic category**.** Slow presentation, which might intuitively seem beneficial, paradoxically appears to hinder real-time processing—perhaps by disrupting rhythmic expectations or overloading visual memory. On the

other hand, faster tempos may support chunking and pattern recognition in skilled interpreters.

This study contributes to the broader field of Interpreting Studies by offering empirical evidence on how modality-specific features like fingerspelling interact with cognitive and linguistic factors in simultaneous tasks. The implications extend to interpreter training, especially in preparing professionals for high-demand tasks involving lexical unpredictability. Moreover, the results can inform the design of interpreter assessment protocols and pedagogical strategies that account for the multimodal complexity of sign language interpreting.

Although the results are still preliminary, ongoing data collection and analysis are expected to reinforce the observed trends and support evidence-based improvements in interpreter education.