Sentence Repetition Test in Brazilian Sign Language

Felipe Venâncio Barbosa and Marco Antonio Teixeira Júnior

Introduction

The assessment of sign language linguistic competence has proven to be relevant for the deaf community and has a decisive influence on the education and health of deaf people. Regarding the education of the deaf and the emerging needs in the area, language assessment in sign language is important for teaching strategies for first and second language. It can equip areas that deal with cognition and language not only in the educational area but also provide tools for health diagnosis, therapeutic interventions, and preventive procedures designed in sign language (Barbosa, 2022). Based on the need to assess the proficiency of deaf individuals who use American Sign Language (ASL), Hauser et al (2008, p. 155-187) developed the Sentence Repetition Test to measure the levels of linguistic mastery of comprehension and expression in that language. The test is based on the analysis of responses through the repetition of the sentence presented as a stimulus: the person being examined observes a sentence in sign language and then repeats the sentence that he/she observed. The production of the repetition reveals the understanding and execution of the syntactic processing of the sentence.

Research objective

This paper has as research objectives to present an adaptation of the sentence comprehension test by Hauser et al (2008, p. 155-187) for Brazilian Sign Language (Libras), discussing theoretical issues related to the principles of its formulation and an initial application of this test in two deaf adults. The initial application aims to verify whether the participants recognize the sentences proposed to the test as grammatical sentences and analyse the error types presented in their productions.

Methods and Analysis

The test adaptation

The adaptation was carried out based on the principles of sentence complexity increasing used in the first version of the original test (Hauser et al., 2008). For the adaptation, we proposed 20 sentences based on the linguistic characteristics of Libras (Quadros, 1999; Quadros and Karnopp, 2004), taking the following Libras characteristics as principles of complexity: presence of plain verbs, non-plain verbs, number incorporation, classifiers verbs, fingerspelling, and the increasing of sentence extension. The propositions of the sentences also have as a reference the organization of complexity proposed in the original test by Hauser et al (2008, p. 158).

Initial application

Based on the proposal for the Libras version, the test was applied to two deaf adults, native Libras users, who volunteered to participate in the research. The 20 sentences were previously recorded by a hearing adult person, fluent in Libras, edited and shown individually to each participant. After each sentence repetition, the participant told to the researcher if they thought the sentence was a grammatical sentence or not. The participants' production was recorded on video for analysis. The analysis of the production of the two participants was based on the errors presented when repeating the sentences and on the types of errors displayed. The errors analysed were: Syntactic restructuring of the sentence, Morphosyntactic alternation, Syntactic inversion or displacement, Morphological omissions and additions, Lexical omissions and additions, Incorrect lexical articulation, or incomprehensible forms.

Results

The sentences were recognized as grammatical sentences of Libras by both participants, and they did not have any difficulties in repeating the sentences. The errors presented in this initial application were: Syntactic restructuring of the sentence, syntactic inversion or displacement, morphological omissions and additions and lexical omissions and additions. None of the participants produced incomprehensible forms of Libras signs. The sentences that were shown to generate errors for the participants are found in the second half of the test, being sentences numbers 11, 12, 15, 16 and 20.

Conclusions

The sentences proposed for the test adaptation, constructed under the specific arrange of complexity criteria, represent possible sentences of Libras being recognized as grammatical by native users of Libras. The errors presented were not substantial enough to impair the understanding of the sentences. All the repetitions presented by the participants were semantically compatible with the stimuli presented and reflect that, although there is an increase in complexity in the structure of the sentences, they are processed in a typical way by the participating native speakers. The observation of the application of the presented version of the test is not normative at this time. There is a need to observe the linguistic behaviour of a larger number of participants, including those with language complaints, and language acquisition delays, in addition to applying it to groups of different ages. However, the instrument can provide important information for directing pedagogical or therapeutic practices.

References

Barbosa, Felipe V.; Cássia Geciauskas Sofiato, Fernando César Capovilla. *Introdução aos Estudos da Língua de Sinais Brasileira - Libras*. São Paulo: Memnon, 2022.

Hauser, Peter C. *et al*. “American Sign Language – Sentence Reproduction Test: Development & Implications”. In: QUADROS, R. M. de. (Ed.). *9th. Theoretical Issues in Sign Language Research Conference*. Florianópolis: Editora Arara Azul, 2008, p. 155-167.

QUADROS, R. M. de. Phrase Structure of Brazilian Sign Language. 1999. 279 f. Tese (Doutorado em Linguística e Letras) – Faculdade de Letras, Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre, 1999.

Quadros, Ronice Muller de; Karnopp, Lodenir B. *Língua de Sinais Brasileira: Estudos linguísticos*. Porto Alegre: ARTMED, 2004.

Supalla, Ted. *et al*. “Reproducing American Sign Language sentences: cognitive scaffolding in working memory”. *Frontiers in Psychology*., v. 5, n. 859, p. 1-16, 2014.