Translating a Portuguese poem in LIBRAS: Linguistic considerations and form-focused tasks

Traduzindo um poema do português para LIBRAS: Considerações linguísticas e tarefas focadas na forma

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Abstract: The teacher of deaf children in primary education is called to apply sign bilingualism in his/her teaching, and hence to use sign language - such as LIBRAS - as the first language during in-class time, and as a school subject. This again means that all other subjects - among them Portuguese - need to be taught in SL. In fact, Portuguese is taught as the second language of deaf children. In such educational setting, the teacher needs to develop learning materials for LIBRAS. Current research lacks recording such practices, although, unofficially, it is common knowledge that teachers translate existing school materials that have been developed for Portuguese and for hearing pupils in primary education. In this paper, a LIBRAS translation is presented of the poem *As abelhas* by Vinícius de Moraes, with the scope to demonstrate its linguistic use for the teaching of LIBRAS as a first language. Apart from its target vocabulary items, form-focused tasks are demonstrated, indicating their implementation for the development of deaf children's receptive and productive skills. In doing so, the poem is presented following the A-level descriptors (A1, A2) of the Common European Framework of Reference for Sign Languages.
Keywords: Sign language learning. LIBRAS. Common European Framework of Reference for Sign Languages. Sign language tasks. Iconicity.

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Resumo: O professor de crianças surdas na educação fundamental é chamado a aplicar o bilinguismo de sinais em seu ensino, e portanto, usar a língua de sinais - como a LIBRAS - como a primeira língua durante a aula, e como uma disciplina escolar. Isso significa novamente que todos as outras disciplinas - entre elas o Português - precisam ser ensinados em língua de sinais. De fato, o português é ensinado como a segunda língua das crianças surdas. Nesse ambiente educacional, o professor precisa desenvolver materiais didáticos para LIBRAS. A pesquisa atual não registra tais práticas, embora extraoficialmente seja de conhecimento comum que os professores traduzam materiais existentes que foram desenvolvidos para português e alunos ouvintes no ensino fundamental. Neste trabalho, é apresentada uma tradução em LIBRAS do poema *As abelhas* de Vinícius de Moraes, com o objetivo de demonstrar seu uso linguístico para o ensino de LIBRAS como primeira língua. Além de seus itens de vocabulário alvo, tarefas focadas na forma são demonstradas, indicando sua implementação para o desenvolvimento de habilidades receptivas e produtivas de crianças surdas. Ao fazê-lo, o poema é apresentado seguindo os descritores de Nível A (A1, A2) do Quadro Europeu Comum de Referência para as Línguas de Sinais.
Palavras-chaves: Aprendizagem de língua de sinais. LIBRAS. Quadro Europeu Comum de Referência para as Línguas de Sinais. Tarefas de língua de sinais. Iconicidade.

1. Introduction

Sign bilingualism, to present, governs the learning of deaf children in school settings through the use of sign languages (SLs) as first languages (L1) of deaf children. In this instance, SL is the means for instruction (regardless the school subject), and, in primary school grades where it is taught as L1, the target language and hence, the subject of study, which children need to acquire, elaborate, and enrich throughout their school years. SL as a L1, then, means that deaf pupils need to study progressively materials that refer to the communicative competence (perceptive and productive) of the given target SL, and its cultural and literal aspects such as sign poetry.

This endeavor is demanding, considering, for example, recent developments of sign linguistics (globally), which allow the study of the morpho-syntactic characteristics of SLs, but, still, the creation and development of specific research-based SL learning and teaching materials is a quest. There is little research that demonstrates the lack of such materials (cf. MERTZANI, 2010), and there are few examples of available materials (KOURBETIS & BOUKOURAS, 2014; GOLOS & MOSES, 2015). Furthermore, it is common knowledge among the practitioners and researchers in deaf education that the language teacher relies on existing textbooks that have been designed and developed for the teaching of hearing children. These are used, by changing and adapting their parts, and transliterating them in the target SL, according to the teacher's SL knowledge.

This is a common practice in deaf education of Brazil, where teachers - according to their LIBRAS level - try to adapt materials for hearing learners into their classes with deaf pupils. Although sign bilingualism *per se* is still rarely applied in the country's deaf schools, such practice is viewed positively, when the teacher knows how to conduct linguistic and literary analyses (e.g. grammar and syntax analyses; analysis of the structure of a story; vocabulary analyses) in both languages (Portuguese and LIBRAS) for the development of learning materials. Within this context, the paper focuses on a translation process with the scope to demonstrate such analyses for the development of form-focused LIBRAS tasks.

Focusing on the A-level descriptors (A1, A2) of the CEFR-SLs - Common European Framework of Reference for Sign Languages (LEESON, BOGAERDE, RATHMANN & HAUG, 2016), the paper discusses the adaptation of Portuguese literary material into the LIBRAS classroom for the setting of objectives for SL learning - receptive and productive - in the first grades of primary education. In doing so, the poem *As abelhas*[1] by Vinícius de Moraes[2] (Appendix A) has been chosen randomly, since it was included - its first four lines only - in the

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school textbook: *Os caminhos da língua Portuguesa 1*, authored by Maria do Rosário Gregolin (2001).

2. Competence levels and SL teaching

Before presenting the analysis of the poem, it is worth noting that in a sign bilingual program the focus is on the communicative competence of the child in both languages (KNOORS, 2016; MARSCHARK, SCHICK & SPENCER, 2006). In general, the definition of communicative competence is broadly presented in the international bibliography (for an overview of the communicative competence in SL teaching cf. MERTZANI, 2016) and it is not the scope of this paper to discuss it here. However, a brief definition is provided in Table 1. It involves not only the learning of the linguistic aspects (e.g. syntax, morphology, phonology) of a target language, but also the learning of its socio-cultural functions (e.g. social rules, idioms), its discourse (e.g. cohesive and transitional devices), and its communication strategies (e.g. modifying text according to the audience and purpose). Thus, in relation to spoken languages (as Portuguese), a person competent in one language ideally possesses listening, speaking, reading and writing across all four communicative competencies. In the case of a deaf child, the focus is on reading and writing. Similarly, with regards to SLs, a competent user/signer is the one who possesses receptive and productive skills of the target SL, linguistically, socio-culturally, and discursively (LEESON & GREHAN, 2010).

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Table 1- Forms of communicative competence.

Linguistic competence	Socio-cultural competence	Strategic competence	Discourse competence
Understanding and using: - vocabulary - Syntax - Morphology - Phonology	Having awareness of: - Social rules of language - Non-verbal language - Cultural references (idioms, background knowledge)	Using techniques to: - overcome language gaps - plan and assess the effectiveness of communication - achieve conversational fluency - modify text for audience and purpose	Understanding how ideas are connected through: - Patterns of organisation - Cohesive and transitional devices

Source: Government of Alberta, Supporting English language learners. Tools, strategies and resources. About ESL Benchmarks: https://www.learnalberta.ca/content/eslapb/about_communicative_competence.html.

The choice to discuss the A-level descriptors of CEFR-SLs, emerges from the general awareness that the SL level of a deaf child varies due to his/her family background and access to SL. There is an international trend that children arrive with basic SL skills in school. This

situation is reflected also in Brazil, where the children access the schools with basic knowledge of LIBRAS or none, since their family backgrounds are hearing with little exposure to LIBRAS. The school (and the class teacher in particular) then, makes the decision upon the child's competence level (cf. QUADROS & SCHMIEDT, 2006). This, again, does not mean that primary schools of Brazil follow the present SL framework, but the paper introduces it as a point of reference[3], which its competence levels can direct current SL school practice. CEFR-SLs specifies proficiency levels for SLs, establishing European standards for use in tertiary educational environments. However, it calls for international educational practitioners (e.g. teacher trainers, curriculum developers) to further adapt it and inform it, depending on the context that it is applied in, across Europe and beyond.

Following the A-level of CEFR-SLs, overall a signer:

[For A1:] Can understand and use familiar everyday expressions and very basic phrases aimed at the satisfaction of needs of a concrete type. Can introduce him/herself and others and can ask and answer questions about personal details, such as where he/she lives, people he/she knows and things he/she has. Can interact in a simple way provided the other person communicates slowly and clearly and is prepared to help (LEESON, BOGAERDE, RATHMANN & HAUG, 2016, p. 9).

[For A2:] Can understand sentences and frequently-used expressions related to areas of most immediate relevance (e.g. basic personal and family information, shopping, local geography, employment). Can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters. Can describe in simple terms aspects of his/her background, immediate environment and matters in areas of immediate need (IBID.).

Table 2 - CEFR-SLs production, comprehension and processing text skills.

Production Skills	Comprehension Skills	Processing Text Skills
- addressing audiences - compensating - monitoring & repair - overall production - planning - public announcements - sustained monologue: describing experience - sustained monologue: putting a case (e.g. in a debate)	- comprehension as a member of a live audience - comprehension & visual media - identifying cues & inferring (signing) - overall comprehension - understanding conversation between native signers - watching announcements & instructions - watching TV & film	- general linguistic range - grammatical accuracy - phonological control - sociolinguistic appropriateness - vocabulary control - vocabulary range

For the analysis of the selected poem, the production, comprehension, and processing text skills are taken into consideration only (Table 2), which their analytical competence is given in Appendices B - D. For their teaching, the methodology adopts communicative

language teaching (CLT) approaches, where the focus is on the creation of communicative scenarios in which the learner uses the language in the way deaf people (as native signers) do (MERTZANI, 2015, p. 44).

3. SL text analysis and focus

The poem *As abelhas* - as it is adopted by the textbook author - aims at introducing to hearing pupils the vowels of the alphabet; mainly, the letters /a/, /o/, and /i/. In its textbook version, this is done by stressing graphemically (through written repetition) the particular letters like "*A AAAAAAAbelha*", "*aaaaaaaas abelhinhas*", "*tooooooooadas*", and "*iiiiiiir*", although in its original version, such intervention does not appear (see Appendix A). Coming across to a text like this, how can this material be used to teach a deaf child his/her own SL? How can this text be transformed for such purposes? Such questions rise, considering its clear phonological focus on the phonemes of Portuguese. In answering these questions, there is need for a detailed text analysis, following, at first instance, the text processing skills of CEFR.

Under these skills, in relation to the specific poem, the deaf child is called to learn and control its vocabulary, the grammar of each lexical item, its syntax, and its sociolinguistic functions. Therefore, with regards to vocabulary, the poem in these four lines presents the following target lexical items in Portuguese: bee (*abelha*), queen (*mestra*), all (*todo*), ready (*pronto*), to be (*estar*), to go (*ir*), feast, party (*festa*), which are then, correspondingly, translated in LIBRAS. In terms of grammar, in Portuguese, the poem introduces the singular and plural number of feminine nouns: ***a abelha*** - ***as abelhinhas*** (the bee - the little bees); and of the adjectives: *a abelha mestra* (the queen bee) - *as abelhinhas prontinhas* (the little ready bees). It also introduces the diminutive form of feminine nouns and adjectives: *abelha* (bee) - *abelhinha* (little bee), *pronta* (ready) - *prontinha*. Syntactically, the poem presents a simple Portuguese phrase structure: noun + adjective, and where the verbs *estar* (to be) and *ir* (to go) are involved, the structures: (i) *estar* (to be) + adjective, for declaring a condition (e.g. *estão* [they are] + *prontinhas* [ready, diminutive]); and (ii) *ir* (to go) + *para* (for) + locative noun (e.g. *ir* [to go] + *para* [for] + *a festa* [a feast, party]) to indicate the direction/action towards a place. Therefore, these linguistic elements are taken into consideration for the translation of the poem in LIBRAS, especially their specific use and, where possible, their corresponding function in LIBRAS.

Firstly, considering the vocabulary, the morphophonological analysis of the items presents certain characteristics (Table 3), which the deaf child needs to perform accurately. For

example, the sign BEE can be articulated with three handshapes (see BEE1, BEE2, BEE3), and the adjective ALL(all bees) with two.

Table 3 - LIBRAS target vocabulary and examples of its morphophonology.

| TARGET SIGN	HANDSHAPE	LOCATION	MOVEMENT
BEE1 ALL1(ALL BEES)		varies, according to the context; i.e., in front of the signer's chest	cyclical & spiral
BEE2(little bee) WHAT		varies, according to the context; i.e., in front of the signer's chest	cyclical & spiral
QUEEN		on the head of the signer	linear, towards the head of the signer
ALL2(ALL BEES)		varies, according to the context; i.e., in front of the signer's chest	cyclical
READY BEE3 ALL3(ALL BEES)		in front of the signer's chest	linear; opposing directions

The item *ir*, since it refers to the bees (they are its subject syntactically), adopts the bee handshapes shown in Table 3, which function as classifiers[4] (as CL: BEE-GO), representing the insect(s) navigation towards a specific direction; to a festa. This latter, as it is explained by the remaining lines of the original poem ("*Lá vão pro jardim*"), refers to a flowery garden and to

the bees' feeding on and collection of nectar/pollen from a range of flowers (e.g. roses, carnation, and jasmine). However, following only the four first lines of the textbook, the word *festa* also permits the imagination of another scene, such as the bees' collective production of honey inside a honeycomb and a beehive. In this instance, new vocabulary in LIBRAS can be introduced like 'honeycomb,' 'beehive,' 'honey,' and their corresponding classifiers.

In LIBRAS, the representation of the first scene (the bees in a garden), introduces the sign FLOWER and bees' navigation over many flowers. Linguistically, then, it introduces the classifier of the sign FLOWER, in singular and plural, and that of the bee to indicate their flying over the flowers (Figure 1). For the LIBRAS representation of the poem's phrase "*A AAAAAAAbelha*" the translation incorporates neologism (cf. SUTTON-SPENCE, 2005, p.7, 28), thus introducing the verb TO-ADORE as another target lexical item. The illustrations that accompany the Portuguese text show the bees happy and hence, the repetition of the letter A can be interpreted as expressing happiness and admiration, considering its overall exclamation function. In this context, admiration can be conducted by combining the A-handshape of the sign TO-ADORE with the handshape of the fingerspelled letter A, and a facial expression with an open /a/ mouth (Figure 2). Hence, the handshape of the sign TO-ADORE matches the letter A in the manual alphabet and its integration occurs naturally.

Figure 1 - The sign and its corresponding classifier for singular and plural.
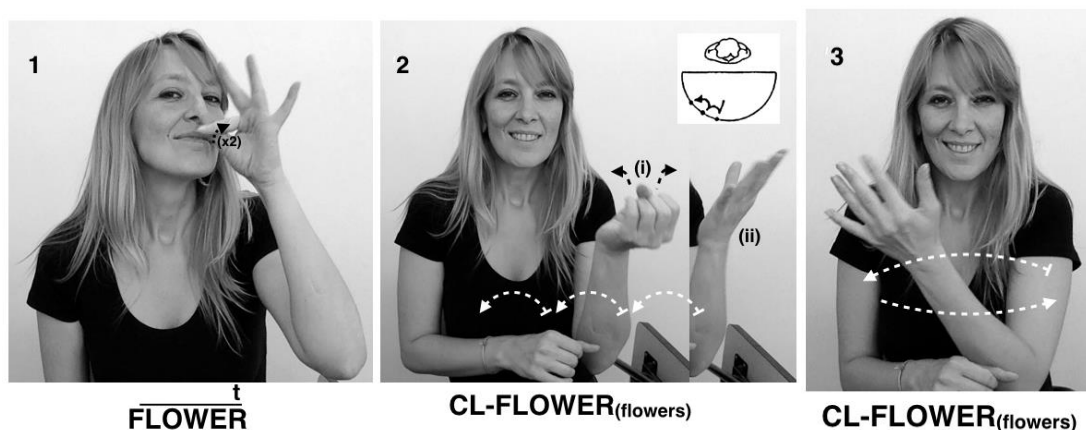
Furthermore, the sign ALL(all bees) (in the poem, "*tooooooooadas*") is represented by the same bee handshape and a large, cyclical movement that represents the round shape of a swarm (Figure 3). In fact, this emphasis on /o/ is done by the articulation of this large cycle, which is also accompanied by an /o/ mouthing expression. With this neologism too, the translation maintains the focus on the target handshapes, introducing at the same time the noun-verb

agreement SL phenomenon, should the teacher chooses to explore it in this level. In this case, the noun BEE agrees with ALL(all bees) and the verbs such as TO-GO, TO-COME, TO-FLY in the sense that all bees fly (as a swarm) to the garden/flowers. As Table 3 displays, the bee can also be performed with the handshape for the meaning READY. Thus, another option is to link the bee (noun) and integrate it naturally with the signs ALL and READY (depending on the handshape focus).

Figure 2 - The incorporation of the sign TO-ADORE.
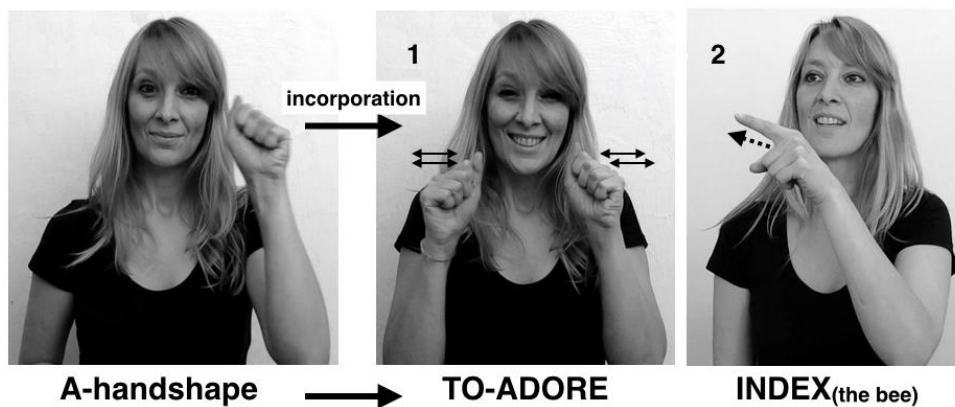


Figure 3 - The iconicity of the sign ALL(all bees).
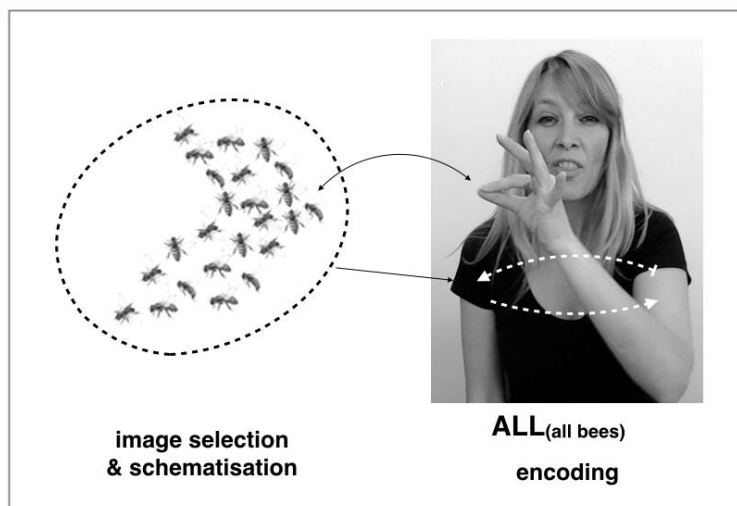
Note: Taub's (2004, p. 44) *three-stage analogue-building model* is adopted for demonstrating the relationship between i.e., the handshapes, their meaning and referents. These stages involve: the image selection of a mental image that is associated with the original concept/referent; the schematisation of essential features of the image; and the encoding (the target handshape itself) of the resulting schema. See also Figure 6.

The use of WHAT (O-QUE) for the translation of the preposition *para* (for) in the line "*pra iiiiiiir para a festa*" assists technically the semantic and linguistic transition in the poem. Its

hand configuration strongly reminds and hence semantically connects to the bee handshape. Additionally, the dominant hand changes from the READY handshape to the handshape of WHAT and then, to the F-handshape again (of the BEE sign), which echoes both the bee(s) and the flower *festa* at the end, through the use of CL: BEE-GO (Figure 4).

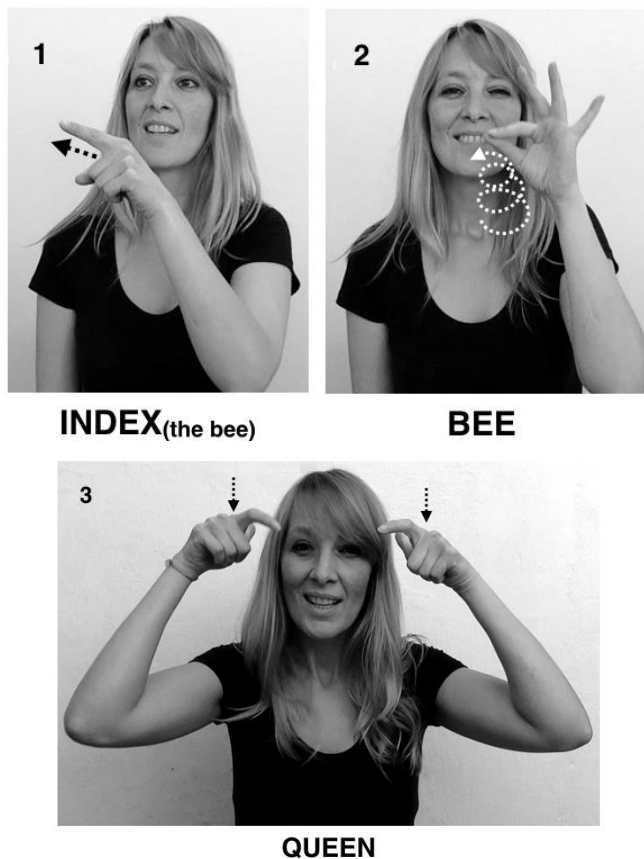Figure 4 - Semantic and linguistic transition using WHAT.

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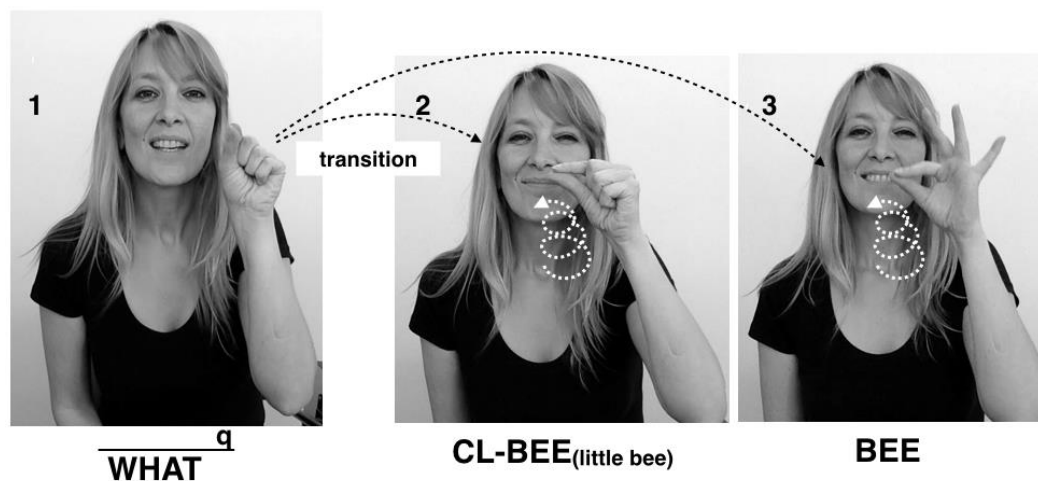
Concerning the syntax of LIBRAS sentence, the focus is on:

(i)   the building of simple topic sentences like INDEX ABELHA MESTRA ([this] a queen bee) (Figure 5);

(ii)   the classifier-verb agreement, using both hands as in: CL-FLOR(left hand) ABELHA(bee flying over a flower) (a bee over a flower) (Figure 6);

(iii)   the non-manual signals of LIBRAS to indicate diminutive forms as in INDEX ABELHA(closure of eyes for denoting 'little bees') (the little bees) (see Figure 4); INDEX ABELHA PRONTO(closure of eyes for denoting 'little bees' and 'prontinhas') (ready little bees);

(iv)   and the use of index as a personal pronoun to denote a condition, equivalent to the Portuguese use of the verb *estar* (to be). For example, INDEX-PRON(I am) READY (I am ready).

These analyses demonstrate that certain common linguistic phenomena are covered by both languages, which, with careful planning, can facilitate teaching in a sign bilingual program, since the target phenomena can be approached interchangeably and in complementarity (from LIBRAS to Portuguese and/or vice versa), and/or cross-thematically.
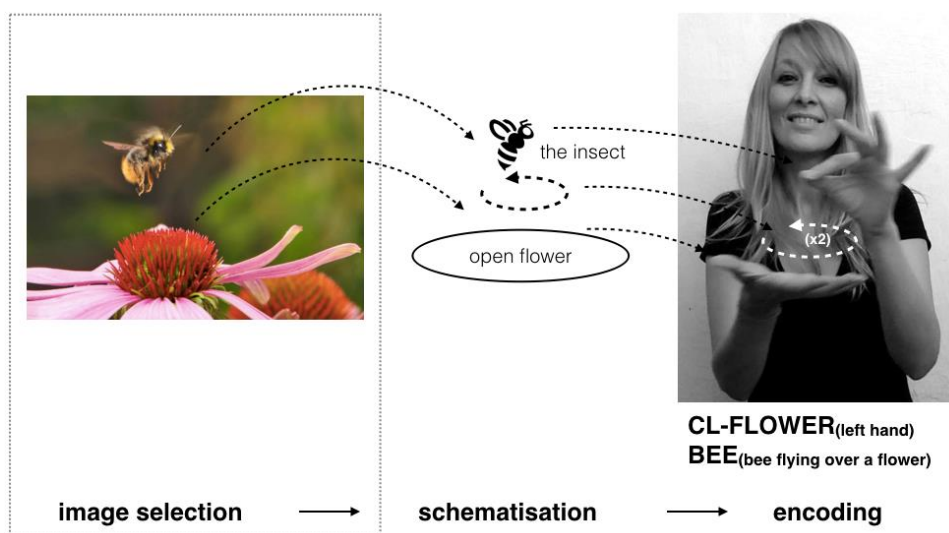
For example, the teacher can approach the simple Portuguese phrase structure: noun + adjective by providing corresponding examples from the simple topic sentence of LIBRAS.

Figure 5 - Example of a simple LIBRAS sentence.

INDEX(the bee)   BEE

QUEEN

Figure 6 - Example of classifier-verb agreement

the insect

open flower

CL-FLOWER(left hand)
BEE(bee flying over a flower)

image selection ⟶ schematisation ⟶ encoding

Note: The sign ABELHA acts as a classifier, representing the bee flying.

Figure 7 - Example a match-the-sign task.

Match the handshape with the corresponding image

(a)   (b)   (c)   (d)
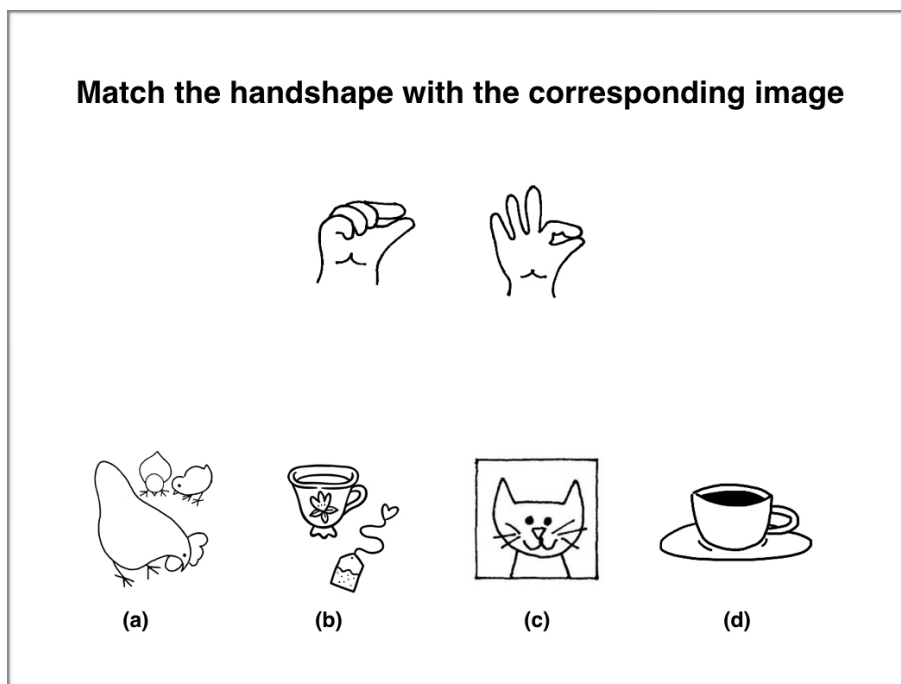
Note: In this task, children need to understand that i.e., the sign COFFEE is a reflection of the way we hold and drink from a coffee-cup (e.g. an espresso cup), whereas TEA derives from the action of holding and dipping a teabag in a cup.

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4 Tasks and focus on SL forms

Based on the above analyses, various tasks can be designed for developing pupils' perceptive and productive skills, with an emphasis on the former, since, at this A-level, CEFR-SLs prioritizes perception (perception: 70%; production: 30%). Apart from asking open comprehension questions about the meanings of the poem, a regular practice taking place in every language class, perception can be taught and tested through match-the-sign tasks, making use of the signs' iconic particulars. For example, having the focus on the bee handshapes, the pupils are asked to choose the correct hand configuration for the articulation of a series of images, such as for a bee in a honeycomb, a bee on an open flower, a bee on a closed flower, and a bee outside a beehive. In these, the objective is to match the correct handshape to i.e., the flower classifiers (open and/or closed) that correspond to real-world images.

Understanding the use of bee handshapes as classifiers (by representing the insect itself), the teacher can check whether children understand their use to indicate other real-world referents (or parts of them), such as a cat (with a movement sketching out its whiskers at the cheeks), chicks eating, a bird (e.g. a hummingbird), tea and/or coffee (Figure 7), where pupils

can simply select, cross and/or even match the images to the specific handshapes. The signs of this poem (especially the 'bee') reflect the visual form of their referents, which are almost the same across different SLs. Such sign universality can be brought into the classroom with examples, using for instance, the online database Spreadthesign (<http://www.spreadthesign.com/>), thus demonstrating common perception and sign convergence across certain SLs. The same handshapes can be used to indicate other insects too, such as a MOSQUITO, a FLY, and/or the general category INSECTS.

Figure 8 - An example of a match-the-sign task by drawing.
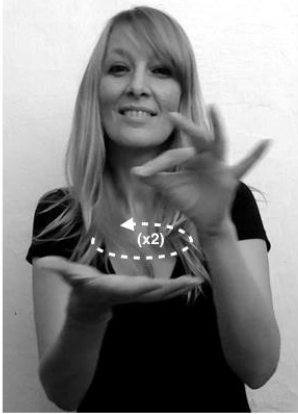

What do you draw?
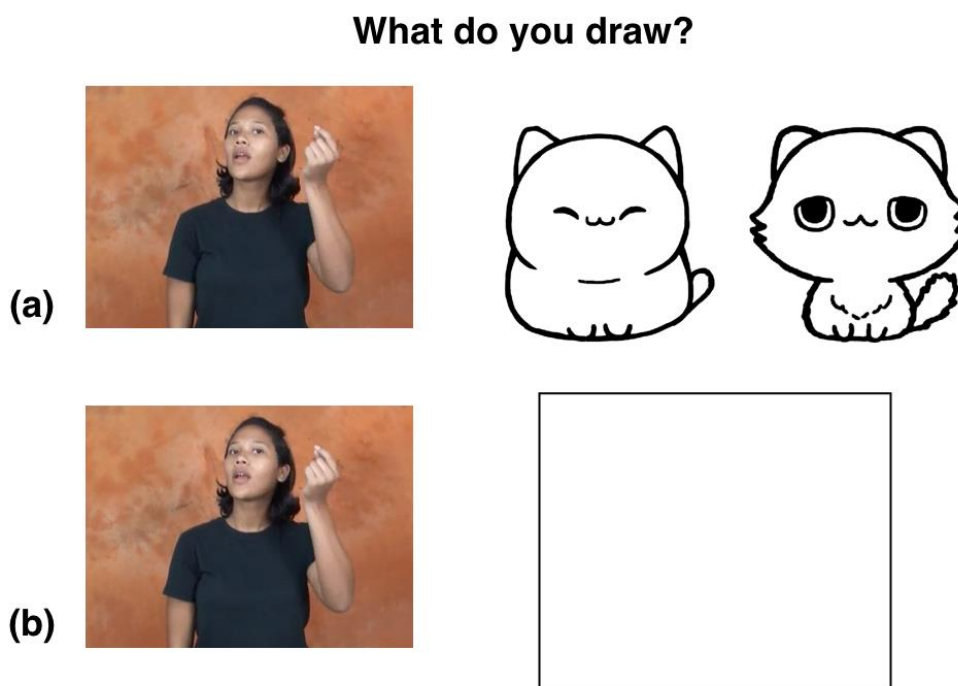
Note: In (a), pupils need to draw the whiskers, whereas in (b), they are asked to draw the referent. Task sheets must contain many item choices. Source for the sign CAT: Spreadthesign (2018).

Another way of testing these skills is to ask pupils to complement the images by drawing the referent (or part of it) in relation to the target handshape (Figure 8). This task illustrates the overall iconicity of the bee handshapes, especially that of the F-handshape, which occurs in signs that refer to holding small, thin, delicate objects (e.g. a pin, a needle, a piece of paper), and in signs where there is no link to the letter F as in the aforementioned signs (e.g. in TEA for holding a teabag). Moreover, the F-handshape differs slightly with the F manual letter in Brazilian fingerspelling, a detail that can be brought into pupils' attention through the neologism in the poem's translation and the actual articulation of the sign FLOWER in LIBRAS.

Figure 9 - Example of a match-the-sign task with choice images.

Match the sign with the correct image


CL-FLOWER(left hand)
BEE(bee flying over a flower)

Since the poem refers to bees, the target handshapes can be used to indicate the articulation of verbs such as TO-GO, TO-COME, TO-FLY(from-one-flower-to-the-other), which represent bees' navigation, and/or for some vocabulary expansion, the verbs TO-STING(various parts of the body) (e.g. to-sting on the arm, on the neck). Again, in such tasks, images are important as they display visually the relations among the referents and the signing, and teach students to recognise the iconicity of the signs, and hence, its purposeful use. For example, an insect with a protruding 'nose' and/or a sting is represented by these two bee handshapes. Furthermore, for such tasks, the multiple-choice/matching options need to involve objects, which ask deaf pupils to demonstrate their discriminate perception skills. If the sign is TO-FLY(over a flower), the choice/matching images need to contain similar real scenes but with distinctive features that significantly differentiate the meaning of the target sign. For instance, an image can show a bee inside a flower, another one, two bees flying over a flower, and a third one, a bee flying from one flower to the other (Figure 9).

Figure 10 - Example of a fill-in-the-blanks task with facial expression

Match the face!

TO-ADORE   INDEX(the bees)   BEE
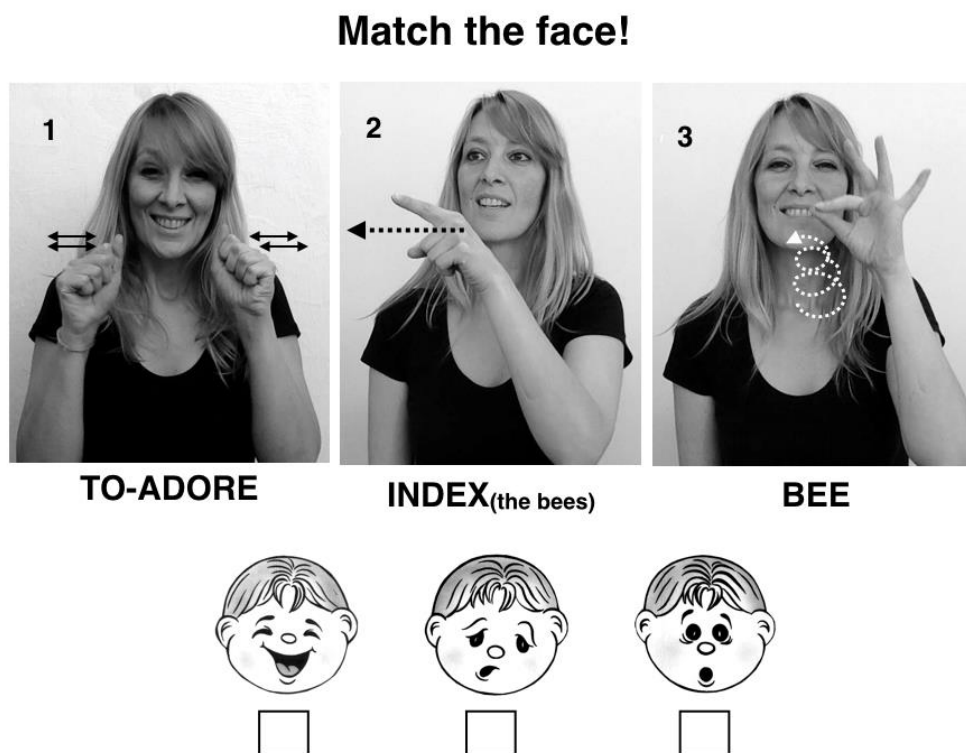
Note: The signing matches to a moderated phrase from the poem: *AAAAAs abelhas.*

The open and closed mouthings of /a/, /o/, and /i/ can be also approached to teach corresponding facial expressions of the target signing. For example, the pupils are asked to match the correct facial expression when they are introduced to target phrases like: TO-ADORE INDEX(many bees) BEE (Figure 10). Likewise, in the following sentence, with the verb TO-STING (in Portuguese, PICAR): "*a abelhinha picou minha mão*". In the first phrase, the /a/ corresponds to feelings of admiration/surprise, whereas in the second one, it corresponds to crying and pain. Such tasks can also be adopted for the teaching of sign movement, requiring students to fill (e.g. by drawing) the appropriate symbol of sign movement (e.g. a cycle, semi-cycle, a spiral, a line, etc.).

All the aforementioned target structures can be used in tasks where the focus is on the signing space and visual perspective. For example, the pupils are asked to match the sentence "*A AAAAAAAbelha mestra*" as if it has been performed by a flower, and/or the sentence "*O flooooor*" as if it has been signed by a bee navigating over flowers. The use of the signing space varies, depending on the signer's perspective, and thus eye level and image plane. The pupil pretending to be a flower, perceives reality (e.g. the queen bee) from a low to high-up viewpoint

(looking and pointing up in the sky), whereas as a bee, the perception works the other way around, looking down to i.e., the flowers.

Video monologues have always been used as learning materials in SL classes (KYLE, JOHN, MERTZANI & DAY, 2010). Hence, considering today's easiness of video recordings, pupils can film themselves signing the poem, including the target structures. In fact, the receptive tasks can be reversed so as to focus on the signed production of i.e., real-world images. Other uses can be the production of videos where they can repair incorrect signing that have previously watched on a teacher's modeled video; a video with their answers on teacher's comprehension questions; and/or a video with simple phrases, showing their positive or negative experience with bees. Of course, such production can be performed in class, although the video provides visual feedback on the signer's language, thus acting as a portfolio of pupil's LIBRAS progress. The video recordings can be combined with picture stories and/or puzzle images, which require the telling of the poem and/or parts of it.

5. Discussion

To present, using materials that have been developed for hearing pupils has been overall

perceived as a demanding work, for the teacher needs to adapt, modify and transfer them in LIBRAS. This work is feasible, where the teacher has the skills and/or the school provides educational interpreting. As a result, deaf pupils receive various levels of instruction, although in either case, as it is mentioned above, LIBRAS is not a subject of study in school curricula.

The analysis of the selected poem raises issues which straightforward answers cannot be provided without the research conduct. For instance, its aim may be questioned considering current school practice that focuses on the teaching of Portuguese only. However, research shows that for a deaf child to read the printed sentences of a language, must understand the grammar of the language (e.g. Portuguese), its basic morphology (cf. MARSCHARK, TANG & KNOORS, 2014). Such knowledge requires the ability to decode words and comprehend the text, which comes through using a SL. Understanding the decoding of one's own SL, can lead to the acquisition of a written (spoken) language.

The poem illustrates in a detailed way how this knowledge is acquired through text processing analyses, focusing on the grammar and syntax of LIBRAS. Questions though remain. Do modern teachers own such linguistic knowledge, and do they apply it in their language classes? In addition, how does Higher Education of Brazil prepare teachers for this purpose? The same questions apply for the educational interpreters since classroom interpreting

involves SL knowledge (including its linguistic aspects) and support of the educational objectives set by the teacher (on the basis of the given curricula).

The signed version of the poem - its four lines - (Appendix E) reflects the visual form of its real-world referents; the bees, their action while navigating, collecting nectar and pollen. Therefore, it is a visual poem, particularly a pattern form (cf. HIRAGA, 2005, p. 100), in which imagic iconicity is its dominant factor. Hence, the signs are visually motivated, and due to this iconicity, they are common in many SLs. Some signs are selected for aesthetic and poetic effect (they are not translated literally), according to patterns of the main target handshape (the bee handshape), as well as their location, movement and orientation. That is, the F-handshape represents the actions of the bees and objects to which they are referring (e.g. the flowers) creating an overall focus on F-like hand-configurations. For instance, the sign FLOWER is formed by the F handshape of the Brazilian manual alphabet, which approximates the bees' handshape, and is visually motivated by the action of smelling a flower. It is also determined by the initial letter of the corresponding Portuguese word *flor*. It is this imagic iconicity that reinforces the poem's semantic content.

It is also shown how the linguistic aspect of the poem (in LIBRAS) is broken into chunks for study, according to the age of the child (following primary school's grades) and the A-level of CEFR-SLs objectives across skills. A literal translation of the poem's Portuguese text would not result in a poetic effect, and LIBRAS would serve only as the language to transmit its meaning. The present analysis though suggests that the teaching starts with the direct presentation of the poem in LIBRAS, without showing its text to children. Only when the level permits it, based on children's competence on Portuguese, the text can be approached in a comparative way, in which literal translations can be introduced too.

Another feature that needs addressing is the role of pictures in this iconic representational aspect of LIBRAS. As in every school textbook, but more intense in the case of the deaf child, materials must rely on imagistic representations, which clearly depict the morphosyntactic relations of signing and its referential reality. Throughout the tasks, the paper demonstrated some examples, although more elaborate artistic art is necessary that matches to children's age and literature. Such imagistic task format also corroborates with current research on SL iconicity, showing that iconic mappings help language processing (VINSON, THOMPSON, ROBIN, SKINNER & VIGLIOCCO, 2015). Specifically, it is demonstrated that tasks of an image-sign (or signing) matching type, contain highly iconic signals that facilitate faster and more accurate responses; and automatically involve the retrieval of semantic

representations, therefore, they undergo deeper (conceptual) processing than non-iconic signals. They also affect the metalinguistic judgments of the similarity of the signs (Ibid.). In their majority, the tasks under presentation belong to this type and, in this respect, are research-based designed. Their iconic properties are not salient, and call children to choose the image that most prominently expresses an iconic feature which maps more signal properties (of the target item).

This paper did not aim to present an in-class procedural teaching of the above material. Rather it leaves it open to the teacher's creativity, although it does support its communicative character. Methodological practices such as work in-pairs, group-work, online interactions and in general, interactive, mobile learning is provisioned and envisioned. Rather it aims to inform educational interpreting and translation, illustrating how visual modality can be implemented alongside the linguistic analysis of a text (with the broader meaning of the latter).

Acknowledgement

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Appendix A: "As abelhas" by Vinícius de Moraes

Original text	Textbook
A abelha-mestra E as abelhinhas Estão todas prontinhas Para ir para a festa Num zune que zune Lá vão pro jardim Brincar com a cravina Valsar com o jasmim Da rosa pro cravo Do cravo pra rosa Da rosa pro favo E de volta pra rosa Venham ver como dão mel As abelhas do céu Venham ver como dão mel As abelhas do céu A abelha-rainha Está sempre cansada Engorda a pancinha E não faz mais nada Num zune que zune Lá vão pro jardim Brincar com a cravina Valsar com o jasmim Da rosa pro cravo Do cravo pra rosa Da rosa pro favo E de volta pra rosa Venham ver como dão mel As abelhas do céu Venham ver como dão mel As abelhas do céu	A AAAAAAAbelha mestra E aaaaaaaas abelhinhas Estão toooooooadas prontinhas Pra iiiiiir para a festa.

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Appendix B: Production A1-A2 descriptors

	ADDRESSING AUDIENCES
A2	Can give a short, rehearsed presentation on a topic pertinent to his/her everyday life, briefly give reasons and explanations for opinions, plans and actions. Can cope with a limited number of straightforward follow up questions. Can give a short, rehearsed, basic presentation on a familiar subject. Can answer straightforward follow up questions if he/she can ask for repetition and if some help with the formulation of his/her reply is possible.
A1	Can deliver a very short, rehearsed statement – e.g. to introduce a presenter, propose a toast.
	COMPENSATING
A2	Can use an inadequate word [sign] from his/her repertoire and use gesture to clarify what he/she wants to say. Can identify what he/she means by pointing to it (e.g. 'I'd like this, please').
A1	No descriptor available
	MONITORING AND REPAIR
A2	No descriptor available
A1	No descriptor available
	OVERALL PRODUCTION
A2	Can give a simple description or presentation of people, living or working conditions, daily routines, likes/dislikes, etc. as a short series of simple phrases and sentences linked into a list.
A1	Can produce simple mainly isolated phrases about people and places.
	PLANNING
A2	Can recall and rehearse an appropriate set of phrases from his/her repertoire
A1	No descriptor available
	PUBLIC ANNOUNCEMENTS
A2	Can deliver very short, rehearsed announcements of predictable, learnt content which are intelligible to interlocutors who are prepared to concentrate.
A1	No descriptor available
	SUSTAINED MONOLOGUE: Describing experience

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A2	Can tell a story or describe something in a simple list of points. Can describe everyday aspects of his/her environment e.g. people, places, a job or study experience. Can give short, basic descriptions of events and activities. Can describe plans and arrangements, habits and routines, past activities and personal experiences. Can use simple descriptive language to make brief statements about and compare objects and possessions.
A1	Can explain what he/she likes or dislikes about something. Can describe him/herself, what he/she does and where he/she lives. **SUSTAINED MONOLOGUE: Putting a case (e.g. in a debate)**
A2	No descriptor available
A1	No descriptor available

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Appendix C: Comprehension A1-A2 descriptors

	COMPREHENSION AS A MEMBER OF A LIVE AUDIENCE
A2	No descriptor available
A1	No descriptor available
	COMPREHENSION OF VISUAL MEDIA
A2	Can understand and extract the essential information from short, recorded passages dealing with predictable everyday matters which are delivered slowly and clearly.
A1	No descriptor available
	IDENTIFYING CUES AND INFERRING (SIGNING)
A2	Can use an idea of the overall meaning of short texts and utterances on everyday topics of a concrete type to derive the probable meaning of unknown words from the context.
A1	No descriptor available
	OVERALL COMPREHENSION
A2	Can understand enough to be able to meet needs of a concrete type provided sign is clearly and slowly articulated. Can understand phrases and expressions related to areas of most immediate priority (e.g. very basic personal and family information, shopping, local geography, employment) provided sign is clearly and slowly articulated.
A1	Can follow sign which is very slow and carefully articulated, with long pauses for him/her to assimilate meaning.
	UNDERSTANDING CONVERSATION BETWEEN NATIVE SIGNERS
A2	Can generally identify the topic of discussion around him/her, when it is conducted slowly and clearly.
A1	No descriptor available
	WATCHING ANNOUNCEMENTS AND INSTRUCTIONS
A2	Can catch the main point in short, clear, simple messages and announcements. Can understand simple directions relating to how to guess from X to Y, by foot or public transport.
A1	Can understand instructions addressed carefully and slowly to him or her and follow short, simple directions.
	WATCHING TV AND FILM
A2	Can follow changes of topic of factual TV news items, and form an idea of the main content.
A1	No descriptor available

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Appendix D: Processing Text A1-A2 descriptors

		GENERAL LINGUISTIC RANGE
	A2	Has a repertoire of basic language which enables him/her to deal with everyday situations with predictable content, though he/she will generally have to compromise the message and search for words. Can produce brief everyday expressions in order to satisfy simple needs of a concrete type: personal details, daily routines, wants and needs, requests for information. Can use basic sentence patterns and communicate with memorised phrases, groups of a few words and formulate about themselves and other people, what they do, places, possessions, etc. Has a limited repertoire of short memorised phrases covering predictable survival situations; frequent breakdowns and misunderstandings occur in non-routine situations.
	A1	Has a very basic range of simple expressions about personal details and needs of a concrete type.
		GRAMMATICAL ACCURACY
	A2	Uses some simple structures correctly, but still systematically makes basic mistakes - for example tends to mix up the marking of time and forgets to mark agreement; it is usually clear what he/she is trying to say.
274	A1	Shows only limited control of a few simple grammatical structures and sentence patterns in a learnt repertoire.
		PHONOLOGICAL CONTROL
	A2	Pronunciation is generally clear enough to be understood despite a noticeable "foreign accent", but conversational partners will need to ask for repetition from time to time.
	A1	Pronunciation of a very limited repertoire of learnt words and phrases can be understood with some effort by native signers used to dealing with learner signers.
		SOCIOLINGUISTIC APPROPRIATENESS
	A2	Can perform and respond to basic language functions, such as information exchange and requests and express opinions and attitudes and simple way. Can socialise simply but effectively using the simplest common expressions and following basic routines. Can handle very short social exchanges, using everyday polite forms of greetings and address. Can make and respond to invitations, suggestions, apologies, etc.
	A1	Can establish basic social contact by using the simplest everyday polite forms of: greetings and farewells; Introductions; saying please, thank you, sorry, etc.
		VOCABULARY CONTROL
	A2	Can control and narrow repertoire dealing with concrete everyday needs.
	A1	No descriptor available
		VOCABULARY RANGE

| A2	Has sufficient repertoire [established and productive] vocabulary to conduct routine, everyday transactions involving familiar situations and topics. Has a sufficient repertoire [established] vocabulary for the expression of basic communicative needs. Has a sufficient [established]vocabulary for coping with simple survival needs.
A1	Has a basic [established] vocabulary repertoire of isolated words and phrases related to particular concrete situations.

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Appendix E: LIBRAS translation of the four lines "As abelhas"

A AAAAAAAbelha mestra
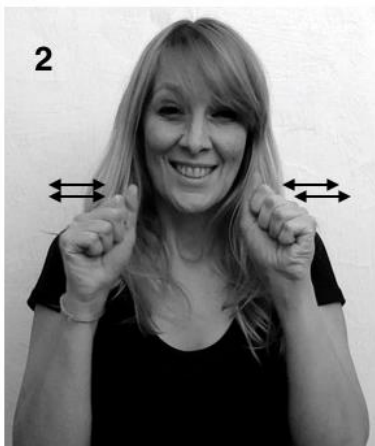
INDEX(the bee)　　　TO-ADORE　　　BEE

QUEEN

E aaaaaaaas abelhinhas

INDEX(the bees)　　　CL-BEE(little bee)　　　BEE

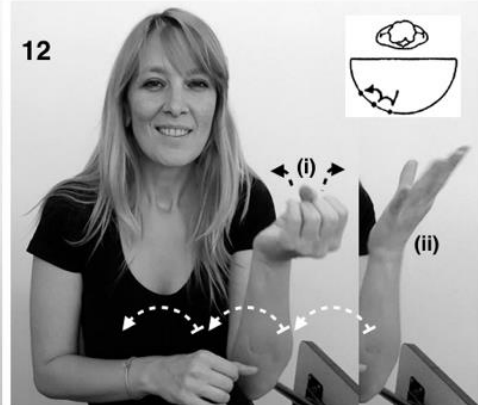Estão tooooooooadas prontinhas
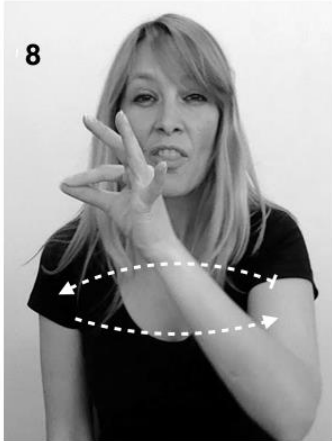
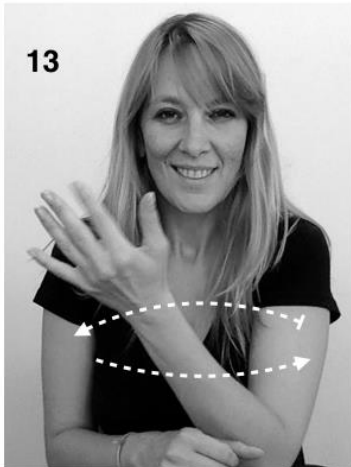
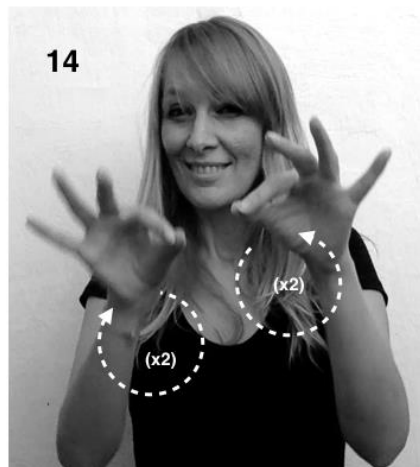ALL(the bees)   READY

Pra iiiiiiir para a festa
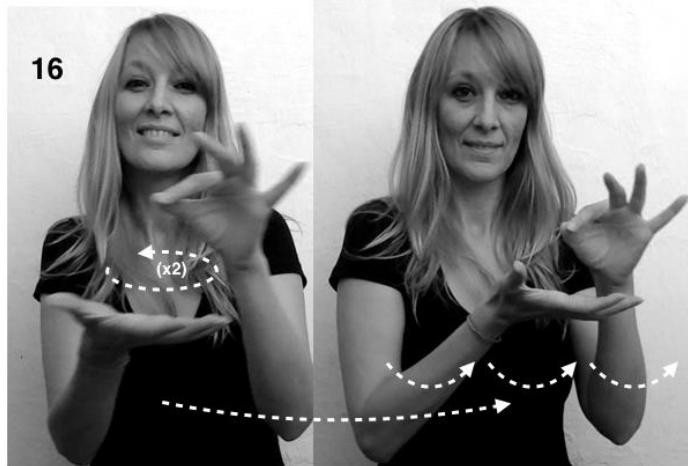

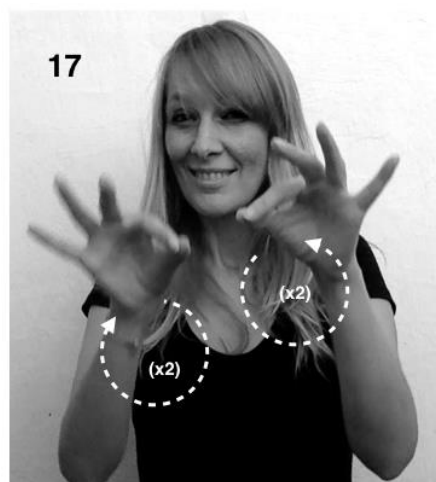WHAT   FLOWER   CL-FLOWER(flowers)

CL-FLOWER(flowers)   CL-BEE(bees flying over the flowers)

GO(CL-BEE; bees coming to)

CL-FLOWER(left hand)
BEE(bee flying over a flower)

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CL-BEE(bees flying over the flowers)

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[1] This poem belongs in the poetic collection of Vinícius de Moraes *A Arca de Noé,* Rio de Janeiro, Sabiá, 1970.

[2] More info about the life and work of Vinícius de Moraes (19 October 1913 – 9 July 1980) at: http://www.viniciusdemoraes.com.br/

[3] In this sense, the paper suggests the adaptation of the CEFR-SLs as a guide for present and future practices in the education of the deaf children, considering the different variables and conditions in the two continents (Europe - Brazil) that such possible implementation implies.

[4] The term *classifier* means any "sign with some visually motivated link between form and meaning" (Sutton-Spence & Woll, 1999, p. 47). In particular, classifiers "refer to a group [of handshapes] that shares common features" [shape, size, handling, etc.]; they are proforms (that is, they substitute for more specific signs); they occur in verbs of motion or location" (p. 48).