Libras Corpus in SignWriting:
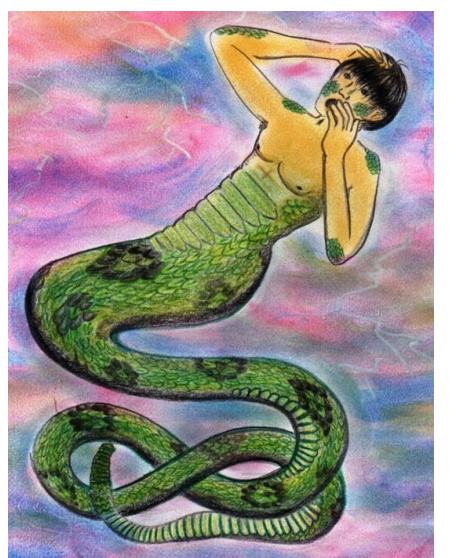# Analysis of verb agreement for person and number

UNIVERSIDADE FEDERAL DE SANTA CATARINA

Libras UFSC | Língua brasileira de sinais

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Introduction

Considering the types of sign language verbs classified by Padden (1988), we investigate only one verb type in Brazilian Sign Language - Libras, the number-person agreement verbs.

According to Haapanen and Wainio (2010), number-person agreement verbs in Finnish Sign Language can be categorized in three types: normal, reverse and hand-orientation. Xavier and Neves (2016) propose that verbs in Libras may be categorized as normal or reverse.

We propose another type of verbs with number-person agreement in Libras.

The "Libras Corpus" Project began in Brazil in 1995, using videos of Libras and their respective transcription using glosses. The research described here used instead SignWriting (Sutton, 1974), which is an internationally accepted system to write any sign language in a more iconic way.

In the analysis of collected data, we present the number of number-person agreement verbs categorized according to the existing models, and afterwards, we discuss the proposal of a new model.
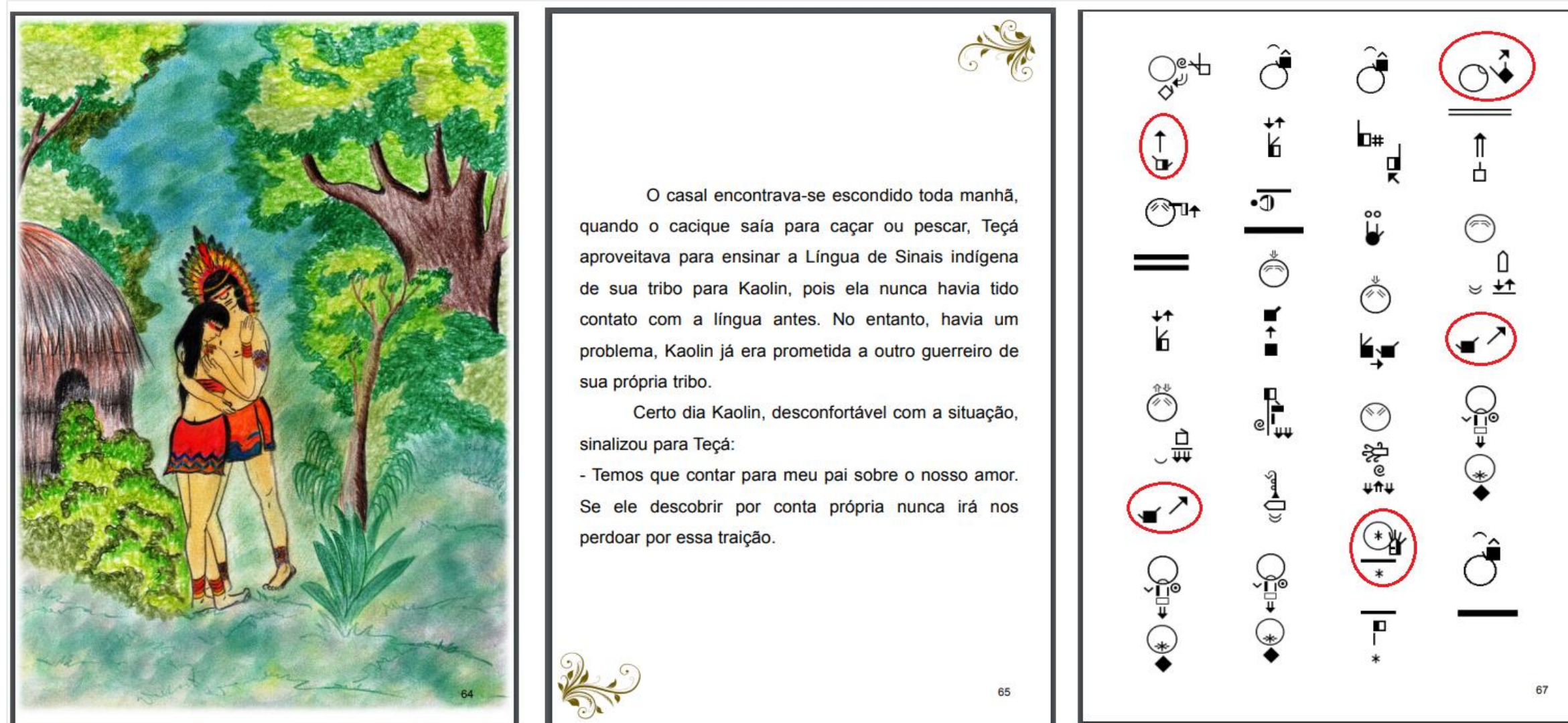
Material

The book "Eleven Stories and a secret: Amazonian Legends Revealed" was selected. The legends are well-known in the Amazonian region. Every story in this literary piece has illustrations adapted for deaf culture.

ONZE HISTÓRIAS E UM SEGREDO
DESVENDANDO AS LENDAS AMAZÔNICAS

https://www.signwriting.org/archive/docs13/sw1202_Onze_Historias_e_um_Segredo_Desvendando_as_Lendas_Amazonicas_1.pdf

Method

SignWriting (SW) was used in order to identify the verbs according to the models proposed by Haapanen & Wainio (2010) and Xavier & Neves (2016). The number-person agreement verb signs, written in SW, found on this page were: TO-TELL, TO-ACCUSE and TO-BETRAY.

O casal encontrava-se escondido toda manhã, quando o cacique saía para caçar ou pescar, Teçã aproveitava para ensinar a Língua de Sinais indígena de sua tribo para Kaolin, pois ela nunca havia tido contato com a língua antes. No entanto, havia um problema, Kaolin já era prometida a outro guerreiro de sua própria tribo.

Certo dia Kaolin, desconfortável com a situação, sinalizou para Teçã:

- Temos que contar para meu pai sobre o nosso amor. Se ele descobrir por conta própria nunca irá nos perdoar por essa traição.

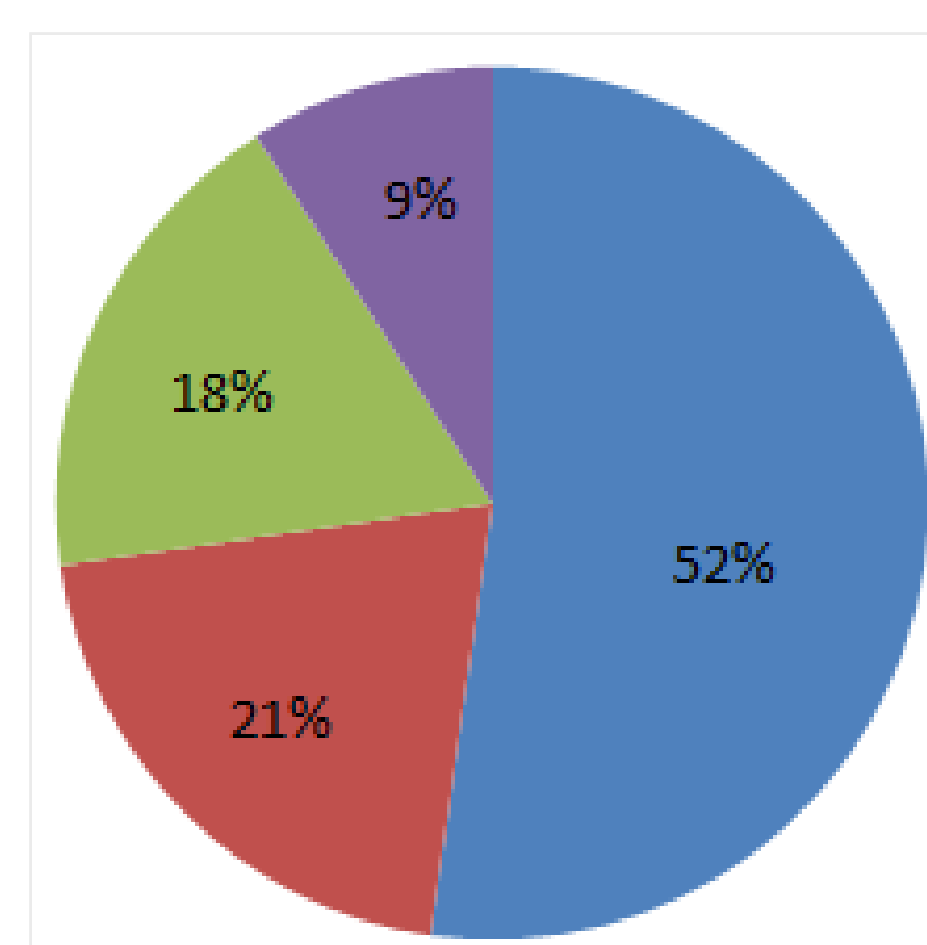The verb TO-TELL, occurred three times, including two different forms of agreement, as in:

"KAOLIN $_a$TELL$_b$ TEÇA$_b$" and "WE-TELL-HE".
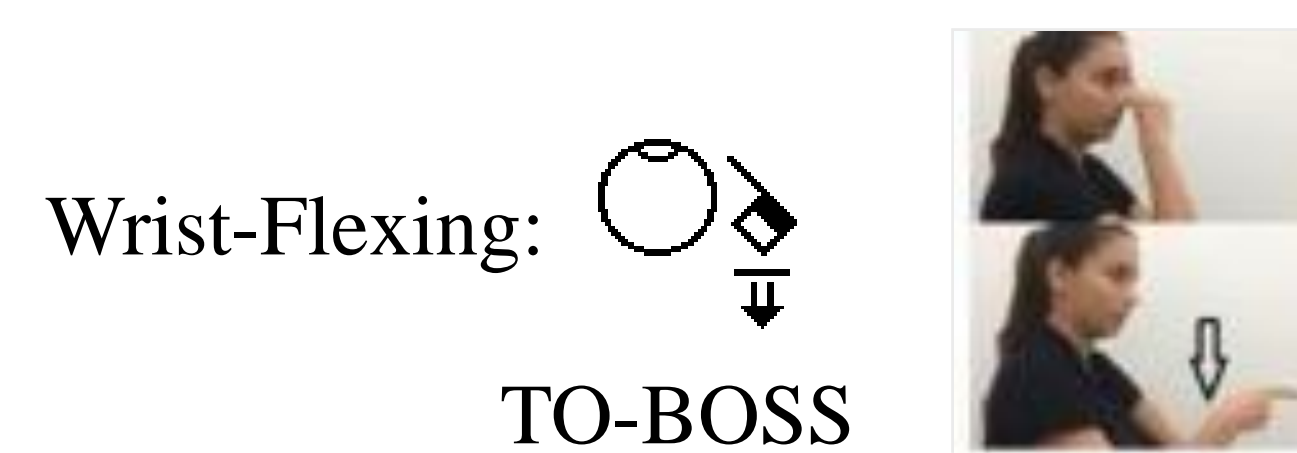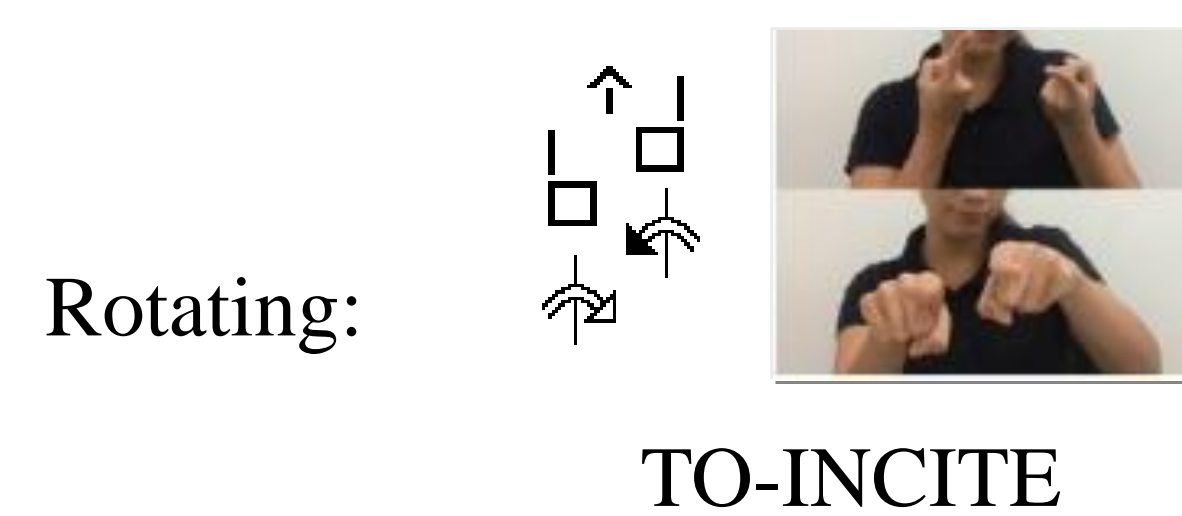
Source: Uiapuru's Tale

A total of 44 verbs was identified through the data collection done in this literary piece.

Results:

The number-person agreement verbs found in Libras match all the categories of the existing models: "normal" (52%), "reverse" (21%) "hand orientation" (9%). A new category was proposed, named "different movements" (18%), which are divided into three types: "rotating", "wrist-flexing" and "alternating".

52%
21%
18%
9%

- Normal
- Reverse
- Different types
- Hand orientation

Rotating: TO-INCITE   TO-FOLLOW

Wrist-Flexing: TO-BOSS   TO-TELL

Alternating: TO-CONTROL   TO-INFORM

Conclusion

We propose a new category, in which different movements provide an opportunity to better understand the signs for person-number agreement verbs, since they are not only marked by single-movements (straight or curved) or change in hand orientation. There are verbs that present straight movements (back and forth repeatedly), or change in the orientation of both hands, or flexing of the wrist with the movement, all these features mark personal pronouns. This shows the need for further investigation in sign languages complex verbs.

References

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