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Article

Zoonymy in Brazilian Sign Language (Libras): Data from the Rio Branco Inventory of Libras

Zoonímia em Libras: dados do Inventário de Libras de Rio Branco

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ABSTRACT: Zoonymy in Libras is a subarea of onomastics that have delved into the proper names of animals. This article analyzes the sign names given to pets by deaf individuals participating in the Inventory of Brazilian Sign Language (Libras) in the municipality of Rio Branco, state of Acre (Rio Branco Inventory of Libras). The Rio Branco Inventory of Libras is a corpus consisting of 32 interviews with deaf individuals from the state of Acre, totaling approximately 100 hours of video recordings. The Libras Inventory Project is under development in several Brazilian cities: Florianópolis, Maceió, Palmas, Rio de Janeiro, Fortaleza, Rio Branco, Porto Alegre, Pelotas, and Brasília. The analyses address the semantic-motivational aspects of the pet's sign names drawing on Sousa's (2023; 2024a) framework containing three taxonomic classifications for zoonymic studies: zooanatomical aspects (for names motivated by an animal's physical characteristics), zooethological aspects (for names motivated by an animal's behavioral or temperamental characteristics), and zooextrinsic aspects (for names motivated by factors external to an animal). This study is theoretically based on Sousa and Dargel (2017), Quadros and Sousa (2021), and Sousa (2022; 2023; 2024a). The findings indicate that the zooanatomical aspect stands out, with 73.3% of the cases, followed by the zooethological aspect (15.6%) and the zooextrinsic aspect (6.7%). Some cases (4.4%) had associated semantic motivations, which led to the proposal of a fourth category, hybrid aspects. As shown in other onomastic studies in Libras, visual characteristics have been a striking motivation in the processes of sign-naming people, places, and pets. Our research also highlighted that Deaf culture and the Deaf experience have influenced the formation of signs in Libras. However, few cases of linguistic borrowing were identified – this differs from what occurs with anthroponyms and toponyms in Libras. Our study contributes to the description of the lexicon in sign languages and to linguistic studies in general.
KEYWORDS: Onomastics. Zoonymy. Brazilian Sign Language. Inventory of Brazilian Sign Language. State of Acre.

RESUMO: A Zoonímia é a subárea da Onomástica que estuda os nomes próprios de animais. Neste artigo, analisamos os nomes de animais de estimação de sujeitos surdos participantes do Inventário de Libras da região de Rio Branco (AC). Os dados são estudados a partir das motivações semântico-motivacionais, tomando como base a proposta de Sousa (2023; 2024a), que elaborou três classificações taxonômicas para o estudo zoonímico: zooanatômicos (para

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os nomes motivados por características físicas dos animais), zooetológicos (para os nomes motivados por características comportamentais ou temperamentais dos animais), e zooextrínsecos (para os nomes motivados por fatores externos aos animais). O Inventário de Libras de Rio Branco constitui um corpus formado por 32 entrevistas com surdos naturais do Acre, somando, aproximadamente, 100 horas de gravações em vídeos. O projeto de Inventário de Libras está em desenvolvimento em diversas cidades Brasileiras: Florianópolis, Maceió, Palmas, Rio de Janeiro, Fortaleza, Rio Branco, Porto Alegre, Pelotas e Brasília. A fundamentação teórica se apoia em Sousa e Dargel (2017), Quadros e Sousa (2021) e Sousa (2022; 2023; 2024a). Os resultados apontam que o aspecto zooanatômico foi preponderante em relação aos demais, com 73,3% dos casos. Em seguida, o aspecto zooetológico apareceu com 15,6% e o aspecto zooextrínseco com 6,7% dos casos. O estudo apontou alguns casos com motivações semânticas associadas, desse modo, ocorreu a necessidade de criar a categoria aspecto híbrido, que somou 4,4% das ocorrências. Como demonstraram outros estudos onomásticos em Libras, as características visuais têm sido marcantes no processo de nomeação própria de pessoas, de lugares e, no caso deste estudo, de animais de estimação. Nossa pesquisa também destacou que a cultura surda e a experiência surda influenciaram a formação dos sinais em Libras. No entanto, poucos casos de empréstimos linguísticos foram identificados – este dado difere do que ocorre com antropônimos e topônimos em Libras. Nosso estudo contribui para a descrição do léxico em línguas de sinais e para os estudos linguísticos em geral.
PALAVRAS-CHAVE: Onomástica. Zoonímia. Libras. Inventário de Libras. Acre.

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1 Introduction

Naming things and actions is a human need that interferes with the very process of human interaction. Naming is a referential process: we locate ourselves, identify ourselves, and communicate with each other through names which, once given, become labels that individualize individuals (proper names of people), geographically identify places (proper names of geographical spaces), affectively identify animals (proper names of pets and other animals), and others (including business establishments, natural phenomena, police operations, to name but a few). All such names are the object of Onomastics.

This article analyzes sign names in Brazilian Sign Language (Libras) given to pets by deaf individuals in the municipality of Rio Branco, capital of the state of Acre, Northern Brazil. Data were collected for the ongoing project *Rio Branco Inventory of*

Libras, which replicates the ongoing parent project *National Inventory of Libras* (developed at Universidade Federal de Santa Catarina, it includes variants of Libras from the municipalities of Maceió, Palmas, Fortaleza, and Rio de Janeiro).

Data analysis targeted the semantic-motivational aspects that had influenced the deaf in their processes of giving a particular sign name to their pets. Sousa's (2023; 2024a) framework was used to classify such aspects based on the research participants' explanations for the sign names of their respective pets. In a previous study, Sousa (2022) pointed out that the pets' proper names in Libras in his corpus had been motivated by their physical characteristics, behavioral characteristics, and/or borrowings from the oral language (Brazilian Portuguese). However, Sousa (2023; 2024a) provides a more matured version of his framework, and Sousa (2024b) includes a more detailed taxonomy based on interviews with deaf individuals from the municipalities of Rio Branco (state of Acre) and Campinas (state of Sao Paulo).

This article is divided into six sections, including this Introduction. Section 2 addresses Onomastics in Libras. Section 3 focuses on zoonyms in general and in Libras. Section 4 describes the *Rio Branco Inventory of Libras* and the project's methodology. Section 5 reports the data. Section 6 provides final remarks.

2 Onomastics in Libras

Onomastics is a field of Linguistics devoted to the interdisciplinary study of proper names (in general) (Sousa; Dargel, 2020). From a linguistic perspective, proper names reveal the worldviews of a human group as attainable through how the lexicon relates to culture, society, and environment. Such a linguistic perspective can be associated with others from different fields of knowledge, including Geography, History, Anthropology, Biology, Zoology, Psychology, and Theology.

Onomastics in Libras – a visual-spatial language – targets the signs used by the Brazilian deaf community, especially in urban spaces, to individualize people (anthroponyms), places (toponyms), animals (zoonyms), natural phenomena

(metereonyms), and others. In singling out the referent, a sign name acquires its onomastic value and its specifying function in a universe of general lexicons. An onomastic sign in Libras carries not only the linguistic specificities of a sign language, but also marks of the deaf culture, the experiences of its individuals, and the social contacts between deaf and hearing individuals through their respective languages (Sousa, 2022).

Onomastics includes the following subareas according to Sousa (2022):

Table 1 — Subareas of Onomastics.

Subarea	**Definition**
Anthroponymy	Study of proper names (or signs) of people (given and family names, nicknames, aliases, social names, stage names, etc.)
Astronymy	Study of proper names (or signs) of astronomical objects (planets, stars, constellations, etc.)
Hydronymy	Study of proper names (or signs) of water bodies (rivers, lakes, waterfalls, creeks, etc.)
Meteoronymy	Study of proper names (or signs) of natural phenomena (earthquakes, hurricanes, typhoons, tidal waves, etc.)
Ononymy	Study of proper names (or signs) of business establishments, educational establishments, financial establishments, products, brands, etc.
Theonymy	Study of proper names (or signs) of gods and entities of various religious or spiritual manifestations (catholic saints, Orishas, etc.)
Toponymy	Study of proper names (or signs) of geographical spaces (cities, countries, streets, towns, communities, squares, etc.)
Zoonymy	Study of proper names (or signs) of animals (pets, animals in general, zoo-characters in artistic productions, etc.)

Source: adapted from Sousa (2022, p. 14).

Toponymy and Anthroponymy have been the most common subareas of Onomastics in Libras. They have been addressed in several PhD dissertations such as: Sousa (2019), Rech (2021), Chaibue (2022), Mariano (2023), Douettes (2023), and Marins (2024).

Sousa (2019) studied the toponyms in Libras of the 22 cities in the state of Acre based on their formal aspects (phonological and morphological) and their semantic-

motivational aspects. He highlighted that most toponymic signs have iconicity and/or have been influenced by the oral language (Brazilian Portuguese) through borrowing processes.

Rech (2021) analyzed the socio-anthroponomastic characteristics of sign names of people in Libras from the perspective of Cognitive Linguistics in interface with Onomastics. In analyzing 393 responses from hearing individuals who answered an online questionnaire, the author sought to identify how conceptual metonyms and metaphors structure the sign-naming process in Libras. The findings showed that conceptual metonymy is the main mechanism involved in such sign formations through substitutions of a part with the whole, the head with the individual, and a physical characteristic with the person.

Chaibue (2022) analyzed the structural and motivational aspects of anthroponyms (109 signs) and toponyms (32 signs) in the municipality of Formosa (state of Goiás) as collected through interviews with deaf and hearing individuals from the region. The findings showed that both anthroponyms and toponyms predominantly contained a single formant, anthroponyms were mostly motivated by the individuals' physical characteristics (41%), and toponyms were mostly influenced by Brazilian Portuguese (41%), especially through use of the initials of the proper name in the oral language.

Using Corpus Linguistics, Souza (2023) recorded interviews with dead individuals and described 112 toponyms in Libras that name cities in the state of Goiás. He found out that anthropo-cultural aspects were the main semantic motivation of such toponyms. Most signs were acronymtoponyms (57), which evinces the strong influence of Brazilian Portuguese upon such sign formations.

Douettes (2023) analyzed biblical toponyms in sign languages from countries in Europe (Italy, Greece, Turkey, Cyprus, Malta), the Middle East (Israel, Palestine, Jordan, Lebanon, Syria, and Iraq), Africa (Egypt and Libya), and South America (Brazil). The author collected 74 signs in Libras and compared them to their respective

matches in the other sign languages, especially regarding their iconicity and motivation. Iconicity was found in 23 signs, and most signs (49) were influenced by cultural traditions and/or social aspects of the cities, states, countries, and/or regions where they are used.

Marins (2024) investigated the toponyms in Libras and in Brazilian Portuguese that name health spaces in the municipality of Feira de Santana (state of Bahia). More specifically, the author addressed the motivations of the toponyms naming health units in both languages based on data collected at the municipal department of health, the DataSUS database (the IT department of SUS, the Brazilian Unified Health System), and the Association of the Deaf in Feira de Santana. Forty percent of the toponyms were directly influenced by the logos, which led the author to propose the taxis mimetoponyms to refer to them.

One aspect is common to the findings of all such PhD dissertations: borrowings from Brazilian Portuguese have reflected on the structure of several onomastic signs. This is consistent with Sousa's (2022) argument that both the social contact between deaf and hearing individuals and the experience of the deaf in a written Portuguese-based society have influenced the process of sign-naming people and places in Libras. However, as the scholar ponders, such borrowings do not entail that Libras is inferior to or dependent on Brazilian Portuguese; in fact, borrowing is a natural phenomenon occurring in languages in contact.

Toponymic and anthroponymic studies of Libras have also been approached in master's theses, undergraduate theses, research articles, and proceeding papers, which are not reported in this article because of space restraints. However, several onomastic subareas, including Ononymy, Theonymy, and Zoonymy have remained unexplored for all Brazilian sign languages[1] .

[1] In Brazil, sign languages include not only Libras, but also sign languages of natives (e.g., Urubu-Kaapor, Sateré-Waré, Guarani-Kaiowá), and emerging sign languages (Fusellier-Souza, 2006), such as Cena.

Venancio (2023) interviewed deaf individuals in the municipality of Rio Branco, state of Acre, and investigated the 29 signs in Libras they had reported to name business establishments in a shopping mall (Via Verde) in the municipality. The author analyzed the signs based on their morphological formation and iconicity and found out that 13 signs contained a single formant and 24 signs were directly influenced by the establishments' visual identify, especially their logos.

Moreira (2023) studied the signs in Libras of 10 Orishas in Candomblé: Èṣù, Yansã, Yemanjá, Nana-Baku, Ogum, Obaluaiye, Òrìnsànlá, Oshosi, Ọṣun, and Shango. This theonymic study sought to analyze the sign structures and how the semantic motivations reflected the Orishas' sacred images or symbols. It reports that 7 signs were structurally simple and 3 signs were structurally compound, but all of them could be directly related to their referents or associated elements in the Yoruba culture and none of them was influenced by Brazilian Portuguese. The findings of this study can also be found in Sousa and Moreira (2024).

Both Venâncio (2023) and Moreira (2023) pointed out how strongly the onomastic signs are iconic in relation to their referents: in the former, the logos of business establishments; in the latter, the most representative images of the Orishas, including their ornaments such as a bow and arrow, an axe, a mirror, and a scepter.

The next section addresses Zoonymy, particularly focusing on Libras. Zoonymy, as understood in this study, deals with the proper (individualizing, private) names of animals, whether pets, fictional characters, famous animals, etc. (see Sousa, 2022).

3 Zoonymy in general and Zoonymy in Libras

As Neethling (2017, p. 250) points out, "animal names as an onomastic category have not received much attention anywhere in the world".

In current literature, there seems to have been drawn a line between 1) zoonymic studies that deal with generic terms referring to animals (more

etymology-oriented, or based on their species, classes, races) (e.g., Cardoso, 1977; Campos, 2012; Garrido, 2012; 2022; Bazan, 2015; Leibring, 2016; Homem; Lubwatu, 2022) and 2) zoonymic investigations that focus on the animals' proper (specific) names (e.g., Karpinski *et al*., 2020; Yuldashev; Andaniyazova, 2022; Sousa, 2022; 2023; 2024a, 2024b).

Cardoso (1977) defines Zoonymy as a linguistic study of animal names, but not exactly of proper names. She investigates the origin of animal names and metasemic processes, since "in all languages, it is mainly the names of animals in direct contact with man that undergo metasemia"[2] (Cardoso, 1977, p. 290), making it possible to observe phenomena such as metaphor, metonymy, and cathacresis.

Campos (2012) reports on a descriptive ethnobiological study of the zoonymic and phytonymic lexicon of the Maxakalí language based on its structure (morpho-syntactical, morpho-phonetical, and morpho-lexical) and semantics (opaque, semitransparent, and transparent classifiers). In proposing an interface among lexicography, biological systematics (taxonomy), and translation to delve into the zoonymic scientific lexicon in Portuguese and Spanish as reported in previous lexicographic works, Garrido (2012) focuses on the problems and inadequacies in the Portuguese-language translation of two English-language encyclopedias regarding their zoonymic entries for families, genera, and species.

Leibring (2016) reports on a broad study on the names of pets from both a synchronic and a diachronic perspective, with data from the European, African and Arctic continents. The author addresses issues such as name changes, animal–human relationships, and differences between male and female animal names. She concludes that like people's names, animal names are influenced by trends and social changes. Changes in the animal–human relationships also influenced the naming process, with

[2] Original in Portuguese: "em todas nas línguas, são principalmente os nomes dos animais que estão em contacto direto com o homem que sofrem o processo de metassemia".

several animal names being borrowed from other onomastic groups (e.g., anthroponyms).

Bazan (2015) identifies and arranged the lexemes used to designate the families of canids (e.g., dogs and foxes) and hyenids (e.g., hyenas and wolves) in the Bantu-languages territory. Homem and Lubwatu (2022) provides a zoonymic inventory from the perspective of the Mbundu culture.

In contrast, Karpinski et al. (2020) tracks down the proper names of pets (dogs and cats) attended to in a veterinary clinic from 2014 to 2018. They pointed to the regular use of the diminutive form (demonstrating affectivity) and homage to personalities in the mythology and in the Brazilian culture in their sample of 36,487 dog names and 14,518 cat names.

Yuldashev and Andaniyazova (2022) takes a language-cultural approach to the zoonyms used in literary texts, focusing on the symbolic meanings of the choices of proper names for animals, the nominative function of zoonyms, and their poetic characteristics.

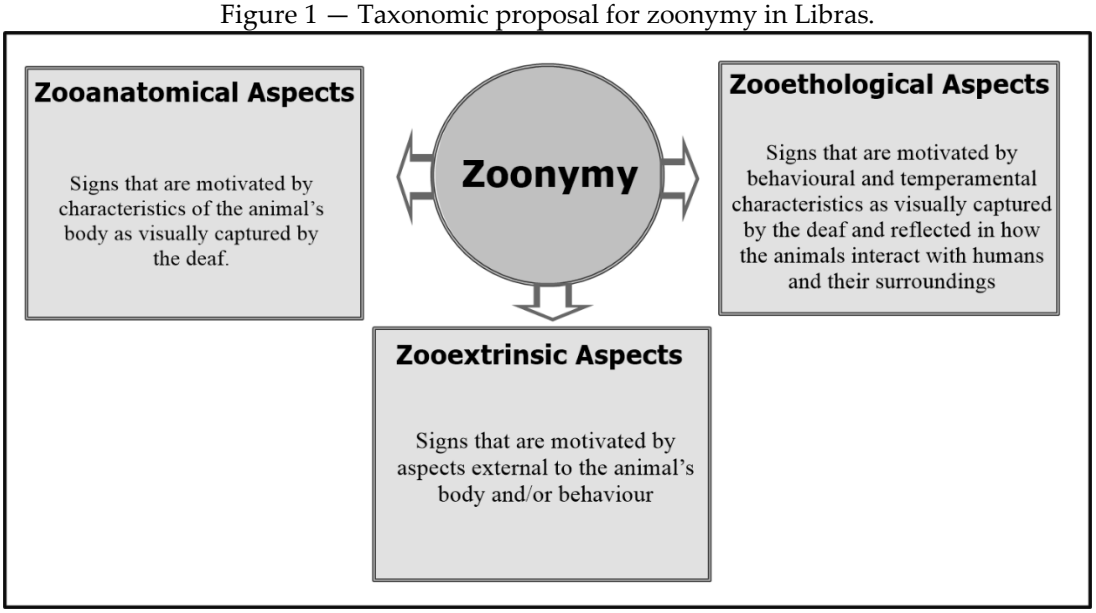
Sousa (2022) describes zoonyms in Libras and posits a preliminary framework for zoonymic sign description based on 3 categories: the animal's physical characteristics (ear shape, muzzle shape, fur color etc.), its behavioral characteristics (calm, sleepy etc.), and borrowings from oral language (e.g. initials of the animal's name in Portuguese). However, the author does not use empirical data to support his classifications, which were based both on his experiences in the deaf community and on his informal observations.

Sousa (2023; 2024a) analyzes 52 interviews with deaf individuals, both males and females aged 10 to 20, from the municipalities Rio Branco (state of Acre) and Campinas (state of Sao Paulo). His participants were asked several questions, including if they had any pets and, if so, what name they had in Libras, if any. Having collected 106 zoonymic signs of dogs (35.85%), cats (34.91%), tortoises (5.66%), fishes (4.72%), rabbits (3.77%), hamsters (3.77%), and horses (0.94%), the author analyses

them linguistically as to their morphology (sign formation) and semantics (sign motivation). Unlike previous studies of anthroponyms and toponyms in sign language, he finds out that most zoonyms in Libras have a single formant and no influence of Portuguese (92.45%). He also reports that the pet's physical characteristics were the main motivations for their zoonymic sign names (62.26%), but there is a myriad of other motivations (behavior, ornaments, race, homages).

Such a myriad of motivations supports Sousa's (2024b) proposal of a taxonomic classification, as described in Figure 1.

Figure 1 — Taxonomic proposal for zoonymy in Libras.



Source: Sousa (2024b, p. 235-236).

This article uses Sousa's (2024b) taxonomic proposal to classify the zoonymic signs reported by deaf individuals participating in the Rio Branco Inventory of Libras, a project described in the next section.

4 Methodology

As mentioned before, this study aims to analyze semantic and motivational aspects of sign names in Libras given to pets by deaf individuals in the municipality

of Rio Branco, state of Acre. Data were obtained from interviews with participants from the Rio Branco Inventory of Libras, as described below.

4.1 Inventory

The Rio Branco Inventory of Libras[3] is an ongoing project based at Universidade Federal do Acre. Headed by Professor Alexandre Melo de Sousa, it is a variant of its ongoing parent project — the National Inventory of Libras — under development at Universidade Federal de Santa Catarina.

The parent project includes data from several states, such as Alagoas, Tocantins, Ceará, Rio de Janeiro, and Rio Grande do Sul. It aims to build a corpus of Libras that is representative of each selected region and to record and map sociolinguistic characteristics based on linguistic, social and cultural background information (Sousa *et al.*, 2023). The project replicated in Rio Branco has the same objectives (see Quadros; Sousa, 2021) and was designed to follow rigorous methods and provide data that are qualitatively comparable across various studies.

4.2 Participants

The study includes 32 deaf proficient speakers of Libras (having acquired the language up to their 7 years of age) born and/or residing in the capital of Acre for at least 10 years. They were distributed into 3 age groups: Group 1 (6 males and 6 females aged 18 to 29), Group 2 (6 males and 6 females aged 30 to 49), and Group 3 (3 males and 5 females aged 50+)[4].

The study was endorsed by the university's ethics committee. All participants provided informed consent and authorization for use of image, both in screenshots

[3] Informants are to be selected for data collection from June 2021 on, in accordance with Ethics Committee's approval (CAAE 35002620.9.0000.5010).

[4] The parent project advises that each group should have 6 men and 6 women. However, no further deaf individuals were found in Rio Branco that also met the criteria of proficiency, time of language acquisition, and naturality/residence in the municipality).

and videos. They also authorized the use of their data in linguistic, educational, and anthropological studies. They received clear, objective instructions in Libras. All written documents had been translated into Brazilian Sign Language detailing the research goal and highlighting its academic, social and cultural relevance for expanding research on Libras and promoting the social inclusion of deaf people. The interviews were conducted only after participants had understood the various implications of providing their images for research purposes.

4.3 Interviews

The project began in 2019, with research team preparation. However, the research activities were suspended due to the Covid-19 pandemic. Despite some remote activities in the interim, the project was only resumed in 2021.

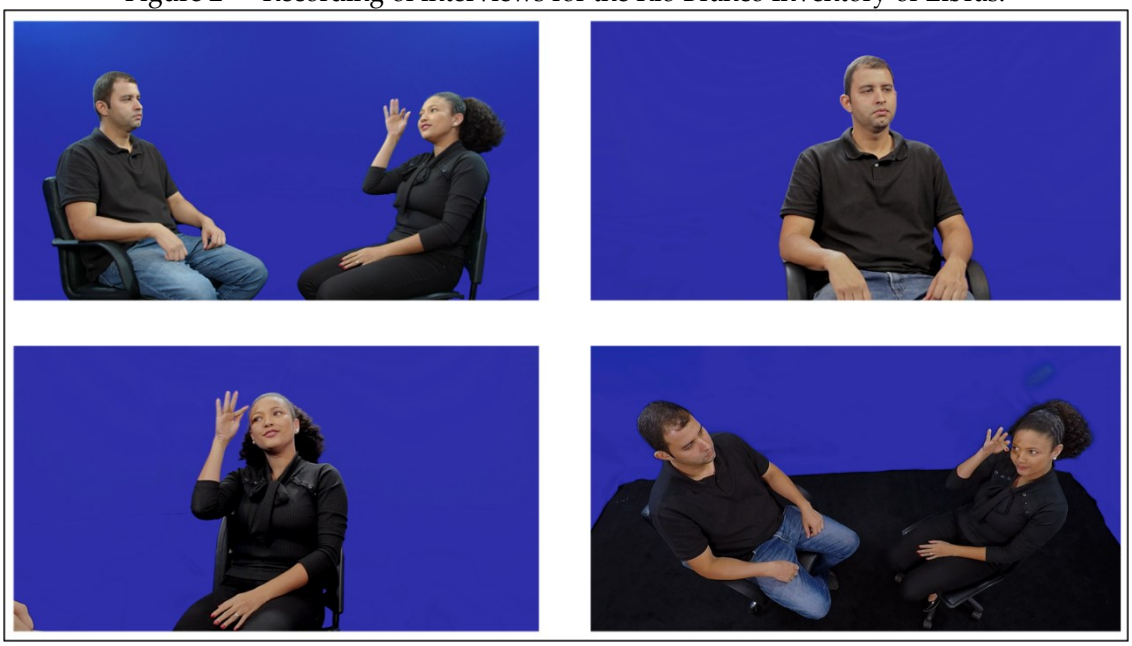
Initially, the team visited the following institutions on site to survey the deaf living in the municipality: CAS (Centro de Apoio ao Surdo, Center for Support of the Dead), Assacre (Associação de Surdos do Acre, Association of the Deaf of Acre), and State and Municipal Departments of Education. This provided the base for recruiting deaf individuals meeting the inclusion criteria.

Then, individual invitations were made in person, providing the potential participants with detailed explanations about the project and its potential contributions to Libras studies, to the prestige of the deaf language and culture, and to science and teaching. Some individuals (aged 50+) did not agree to participate for various reasons, including time constraints, shyness, and/or no proficiency in Libras.

The research team was trained before proceeding to the interviews with the university's support. The space used for interview was a studio with recording equipment (4 cameras, computers, TV), walls in blue, adequate lighting, and media staff. Both researchers and participants wore black T-shirts.

The interviews were captured from 4 different angles, as illustrated in Figure 2:

Figure 2 — Recording of interviews for the Rio Branco Inventory of Libras.



Source: project archives.

The interviews consisted of the following stages: 1) administration of personal questions, 2) an elicitation activity with the support of a narrative (film) to be watched and retold, 3) an elicitation activity with the support of another narrative (comic book) to be retold, 4) researcher-participant conversation about various topics (e.g., deaf education, leisure, Covid-19, technologies), and 5) an elicitation activity focusing on the grammar and lexis (Swadesh List) of signs prompted by slide images.

The interviews were conducted by 3 deaf researchers. Not only did they meet the inclusion criteria applied to participants, but they also were extroverted college students that featured as leading members of the deaf community.

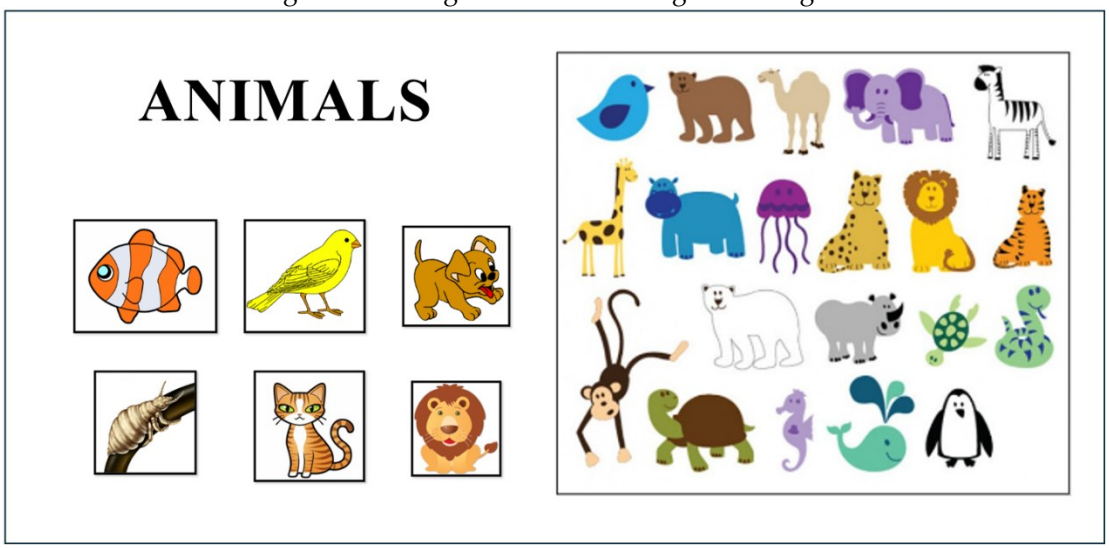
Upon completion of interviews in 2023, the project moved to the ongoing notation/transcription stage. Data have been notated/transcribed using the protocols of the parent project for analysis on software Elan (EUDICO Language Annotator).

4.4 Zoonymic data

In the Swadesh List stage of the interviews, participants were asked to initially provide the generic signs of animals (e.g., dog, cat, lion, fish, giraffe, bird, elephant,

tiger, penguin, turtle, bear, tortoise etc.). To this end, participants were provided with slide images (Figure 3).

Figure 3 — Image slides for eliciting animal signs.



Source: project archives.

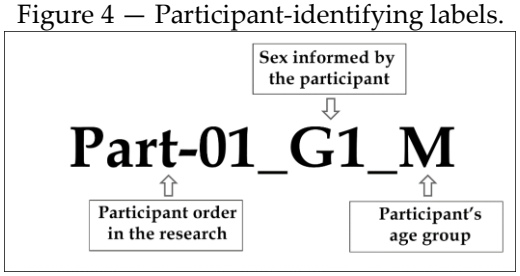
Then, participants were asked if they owned pets and, if so, what sign name they had in Libras, if any. Those participants who responded positively were asked why they had chosen that sign name in Libras.

According to Sousa and Garcia (2023), 6,468 lexical items were found in the grammatical and lexical elicitation stage (Swadesh List) of the project. The most representative group of items was time (11.73%), followed by municipalities (11.22%).

5 Results and discussions

The interview data were organized to isolate quantitative zoonymic data. Each participant was identified through labels containing the pieces of information shown in Figure 4.

Figure 4 — Participant-identifying labels.



Source: project archives.

Labels were used to organize the data anonymously despite the participants' consent to their identification and authorization of use of their images. In any case, this article does contain images of some participants.

Table 2 shows the overall quantitative data.

Table 2 — Quantitative of zoonymic signs.

Group	# of participants	Pet owners	# of pets	Sign in Libras
1	12	12	15	15
2	12	10	21	20
3	8	7	10	10
TOTAL	**32**	**29**	**46**	**45**

Source: the author.

Therefore, 45 zoonymic signs were identified in the Rio Branco Inventory of Libras: all 12 participants had pets in Group 1 (18-29 years old); 10 out of 12 participants had pets in Group 2 (30-49 years old), but one had given no sign name yet; and 7 out of 8 participants had pets in Group 5 (50+).

As some participants had more than one pet, the number of signs is greater than the number of participants: 15 signs in Group 1, 20 signs in Group 2, and 10 signs in Group 3. The Group 2 participant's justification for giving no sign to his pet was that they have not been together for a long time (it was a puppy, and its owner still needed time to observe its characteristics before giving it a sign name).

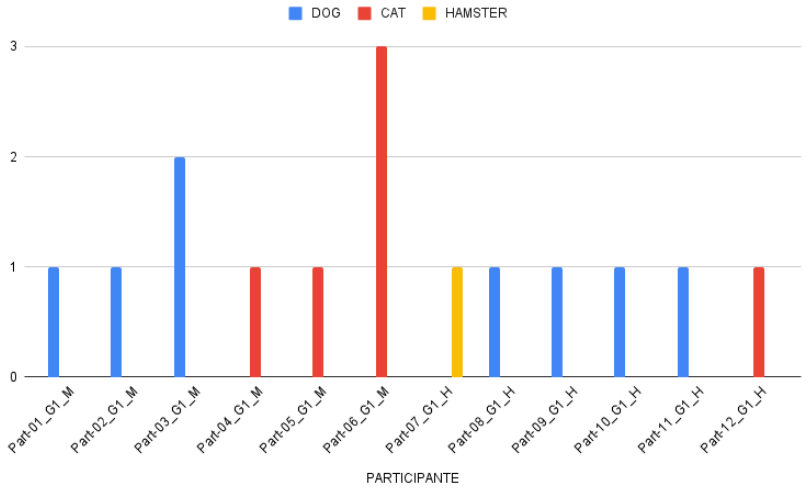
The following sections provide the findings per age group, followed by a quantitative summary of all groups in section 5.4. Each zoonymic sign is written in SignWriting, a script used for Libras and other sign languages. No videos are provided for illustration purposes, because they are in the editing stage (image processing).

The analyses first provide the types and respective numbers of animals in each group, and then account for their semantic motivations following the classification posited by Sousa (2023; 2024a; 2024b). Excerpts from the transcribed interviews are provided to discuss such motivations.

5.1 Group 1

Group 1 includes 6 female and 6 male participants. Most of them (8) were college students, and the other participants were completing high school. As shown in Table 1, they all had pets with their own sign names (see Graph 1).

Graph 1 — Pets/numbers (Group 1).

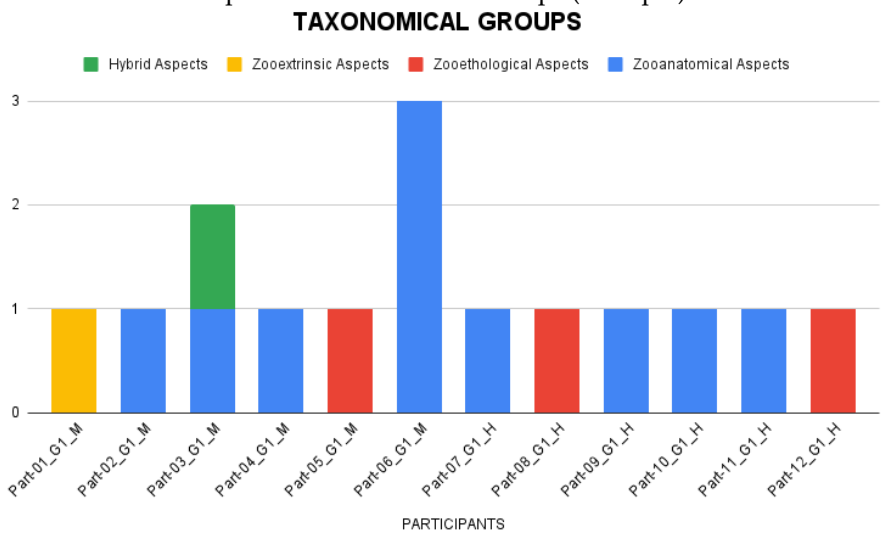


Source: the author.

The participants had dogs (8), cats (6), or hamsters (1). Interestingly, dogs also stood out in the samples reported by Karpinski et al. (2020) and Sousa (2023).

Graph 2 shows a classification of the pet names in Group 1 based on Sousa (2023; 2024a; 2024b).

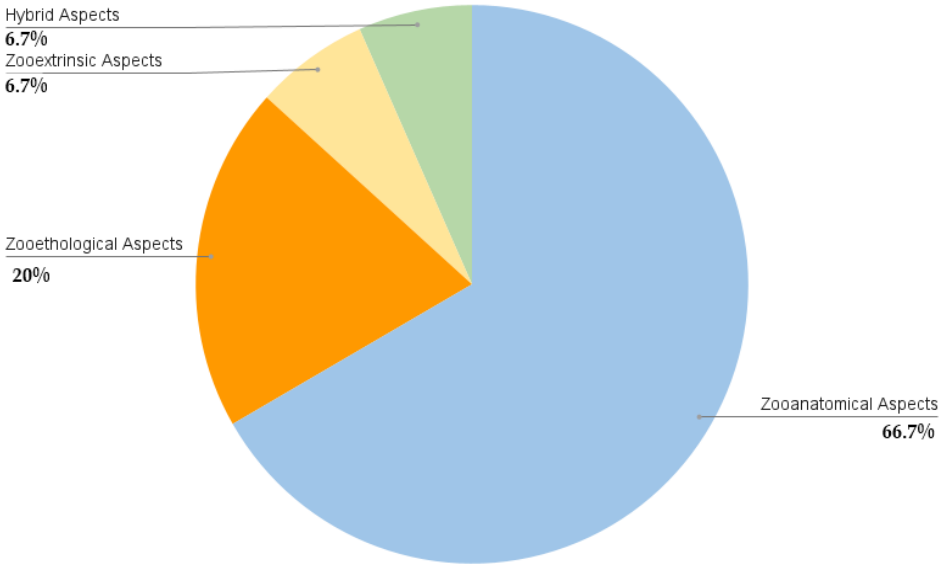
Graph 2 — Taxonomical Groups (Group 1).



Source: the author.

As can be seen, physical (zooanatomical) aspects prevailed as the main motivations for the pet signs in Group 1. This translates in the percentages in Graph 3.

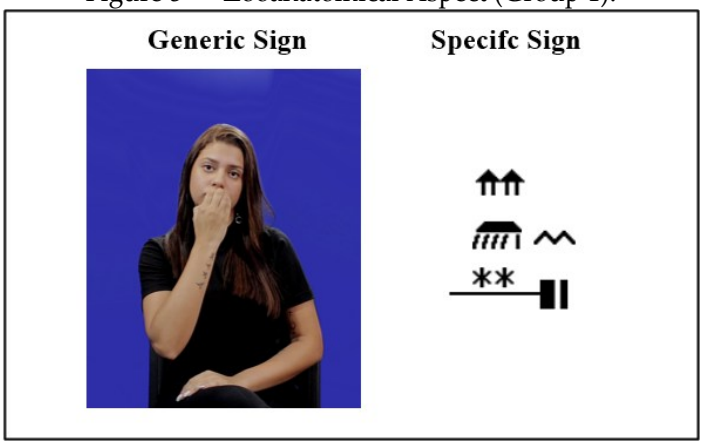
Graph 3 — Taxonomical Groups in % (Group 1).



Source: project archives.

The number of sign names based on zooanatomical aspects totals 10 (66.7%). Their motivations include fur type, fur color, muzzle shape, ear shape, and some physical disability. Figure 5 provides the sign name of a female dog based on her fur shape.

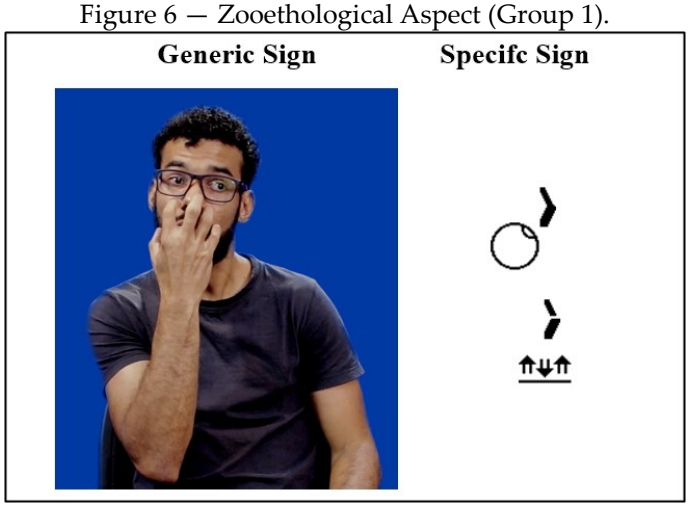
Figure 5 — Zooanatomical Aspect (Group 1).



Source: project archives.

Zooethological aspects totaled 3 (20%). The participants mentioned, for instance, how agitated their pets are, how they gaze, or how they regularly scratch themselves. Figure 6 contains an example of scratching behavior.

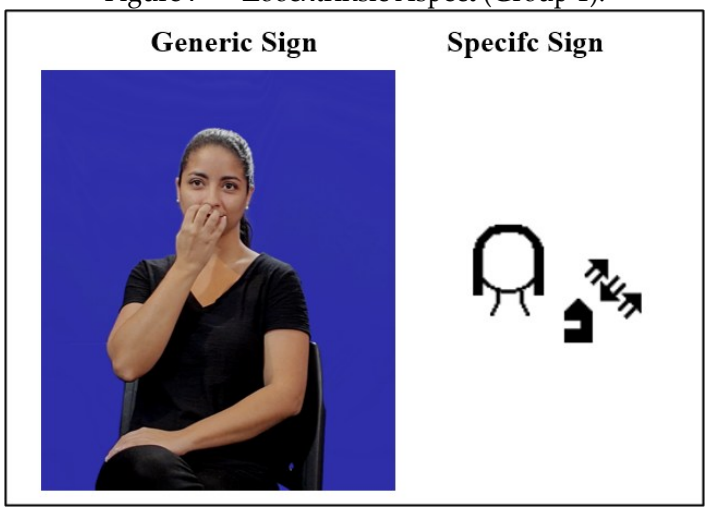
Figure 6 — Zooethological Aspect (Group 1).



Source: project archives.

Only one zooextrinsic aspect was found in the sample (6.7%). A female participant had sign-named her female little dog by using the handshape for letter B because of her pet's name in Brazilian Portuguese: Belinha (see Figure 7).

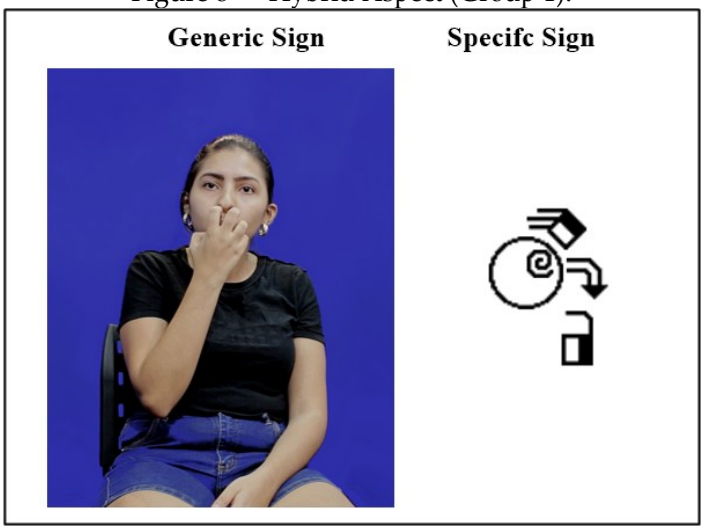
Figure 7 — Zooextrinsic Aspect (Group 1).



Source: project archives.

A female participant reported a sign that involved two aspects in its composition: a zooanatomical aspect (the color of the fur near one of his dog's eye is different from the rest of its body) and a zooextrinsic aspect (handshape referring to the letters of the pet's name in Brazilian Portuguese). Figure 8 shows this sign with a hybrid aspect.

Figure 8 — Hybrid Aspect (Group 1).



Source: project archives.

She explained the following:

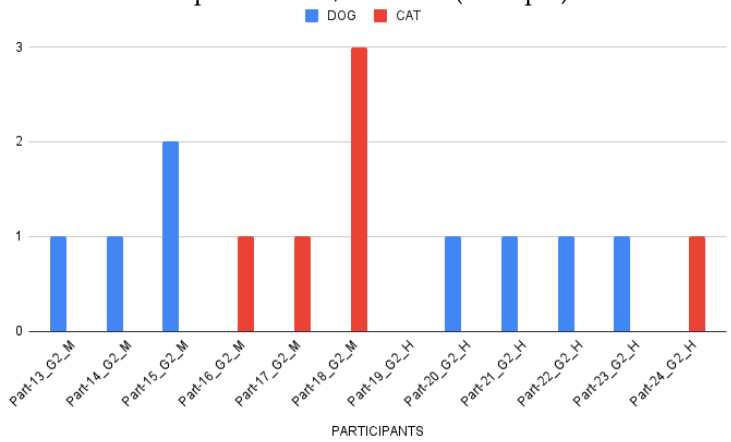
> My dog didn't have a sign name in Libras. He was already grown up, and I felt like I needed to give him a name in my language. I saw my father calling him by his name in Portuguese. I can read lips. So I decided to combine the mark on the dog's forehead and the letters of her name. I think the sign turned out to be pretty. It seems bilingual [laughs]. (Part-03_G1_M)

In this case, the motivation was classified as a **hybrid aspect**, a novel taxonomy that supplements Sousa's (2023) framework. The hybrid aspect was found in 6.7% of the group's sample. Importantly, Sousa (2023) had already mentioned that some aspects could overlap in some signs, but he had not determined a specific classification for those cases.

5.2 Group 2

Group 2 includes 6 males and 6 females, all aged 29 to 49. Not only were all participants proficient in Libras, but 7 of them were also Libras teachers. The remainder worked in local businesses. Graph 4 shows the numbers of pets across the participants in this group.

Graph 4 — Pets/numbers (Group 2).

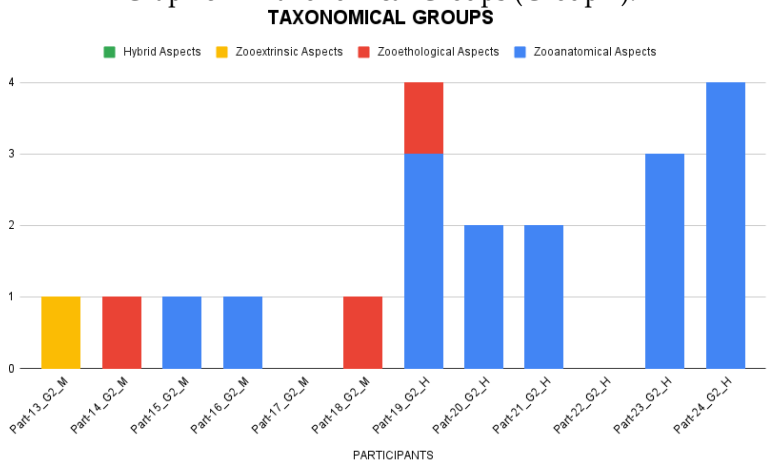


Source: the author.

Two (1 male and 1 female) out of the 12 participants stated that they did not own pets. Only one of those owning a pet mentioned that he had not determined a sign name for his pet.

The group sample contains 15 dogs and 5 cats with their own sign names in Libras. Graph 5 shows their motivations based on Sousa (2023; 2024a; 2024b).

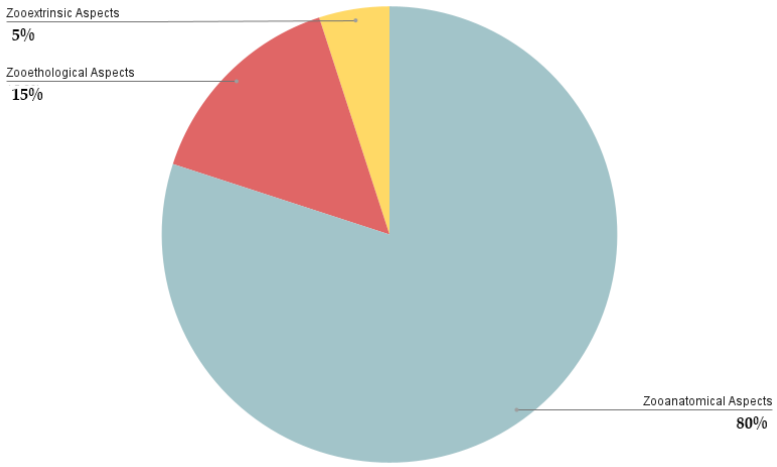
Graph 5 — Taxonomical Groups (Group 2).



Source: the author.

Like in Group 1, the zooanatomical aspects stood out in Group 2. Graph 6 shows the respective percentages.

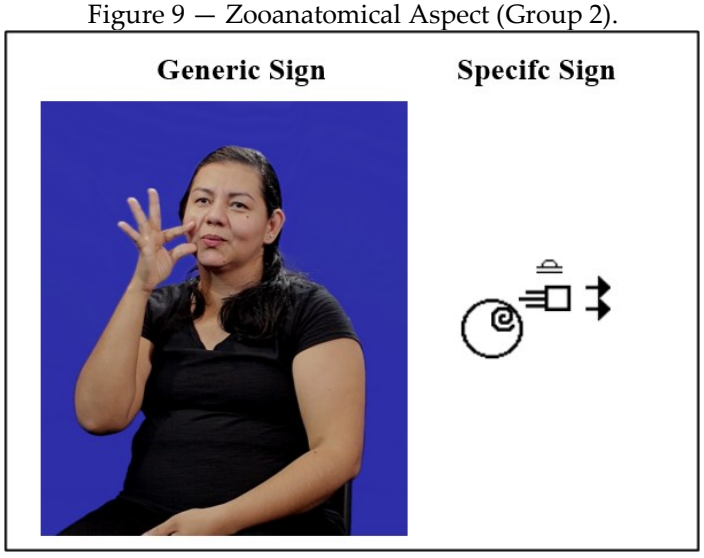
Graph 6 — Taxonomical Groups in % (Group 2).



Source: the author.

Zooanatomical aspects accounted for 80% of the cases. The participants' sign-naming processes were motivated by their pets' fur mark, fur color, ear shape, eye color, type of tail, tooth shape, and physical disability (as is the case of a female cat as presented below).

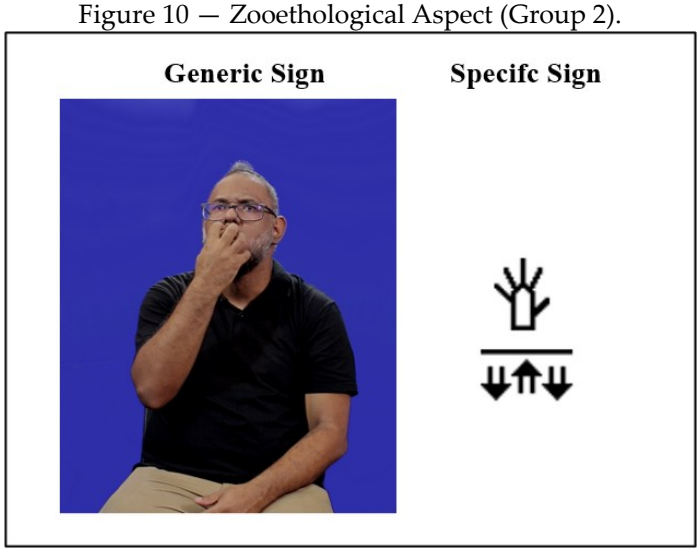
Figure 9 — Zooanatomical Aspect (Group 2).



Source: project archives.

The zooethological aspects totaled 15% (3 cases). Motivations included the pet's sleepiness, way of running, and calmness. The following example illustrates a calm behavior.

Figure 10 — Zooethological Aspect (Group 2).



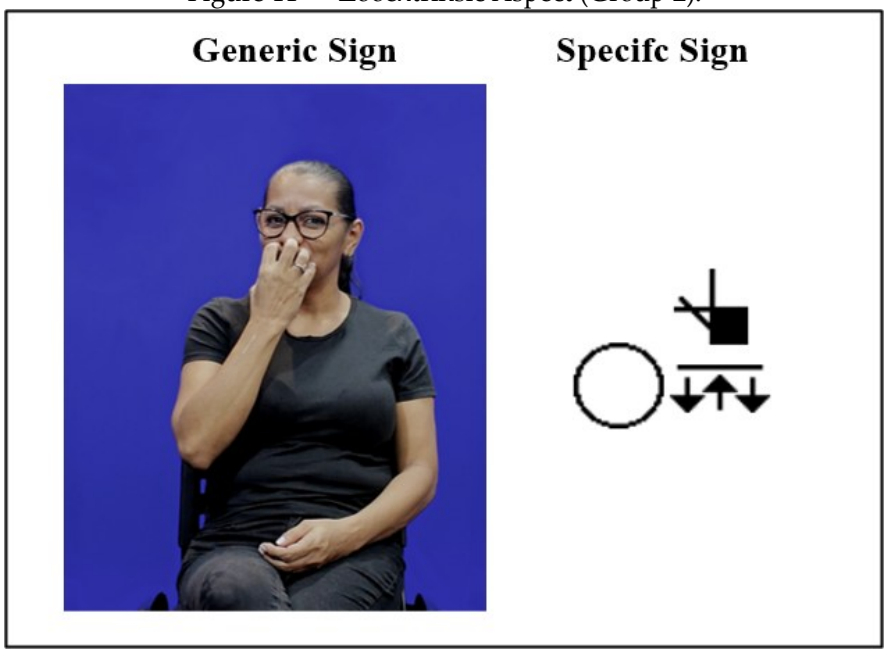
Source: project archives.

The participant said the following to explain his choice of sign:

> This dog is different from the other 3. He is calmer, playful; he does not attack people. Then I gave him the sign LEVE [meaning light]. The others are more serious and aggressive. Not LEVE. He's very affectionate. (Part-19_G2_H).

Only one sign was classified as having a zooextrinsic aspect. According to a female participant, the sign name of her female little dog was motivated by the hair bows worn by the pet. Figure 11 shows this sign motivated by the pet's external characteristic.

Figure 11 — Zooextrinsic Aspect (Group 2).



Source: project archives.

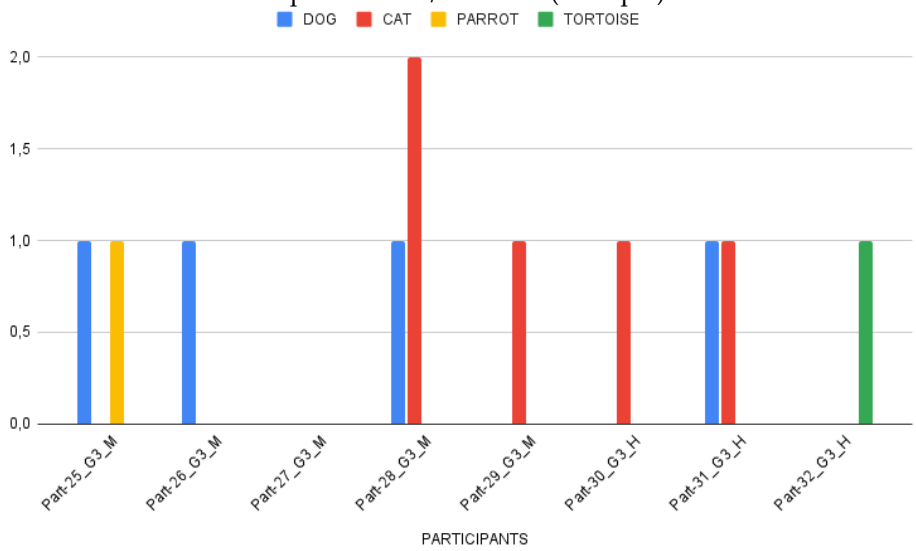
According to Sousa (2023), a zooextrinsic sign is a sign motivated by something that is external to the animal (such as the use of ornaments). Using or not an external piece is the owner's choice, not the pet's. It is different, for example, from the sign name of people motivated by their use of accessories (such a sign name is classified as behavioral, as it is a choice of the individual).[5] No hybrid aspects were found in Group 2.

5.3 Group 3

Group 3 includes 3 males and 5 females aged 50+. It was difficult to recruit participants for this group for two main reasons. Graph 7 shows the numbers of animals in this group.

[5] See Barros (2018), who posits a taxonomic classification in her study of the sign names of humans (anthroponyms) in Libras.

Graph 7 — Pets/numbers (Group 3).

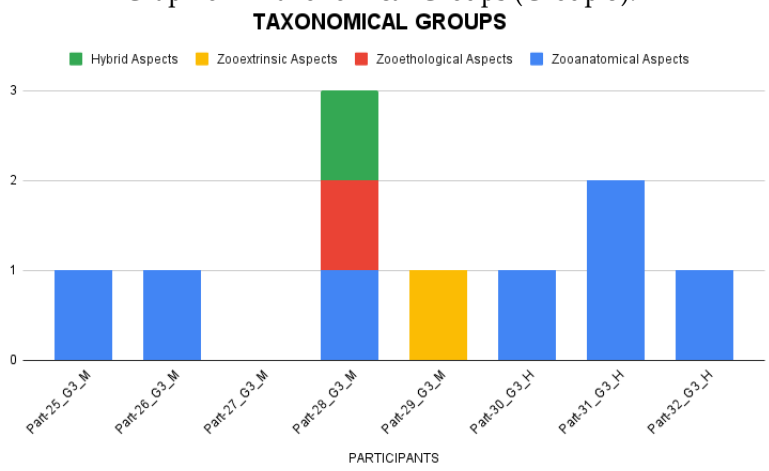


Source: the author.

The number of cats (5) stood out in Group 3, followed by dogs (3). Group 3 is also the only group with a parrot and a tortoise. One of the participants stated that he did not own a pet.

Graph 8 provides the percentages in Group 3:

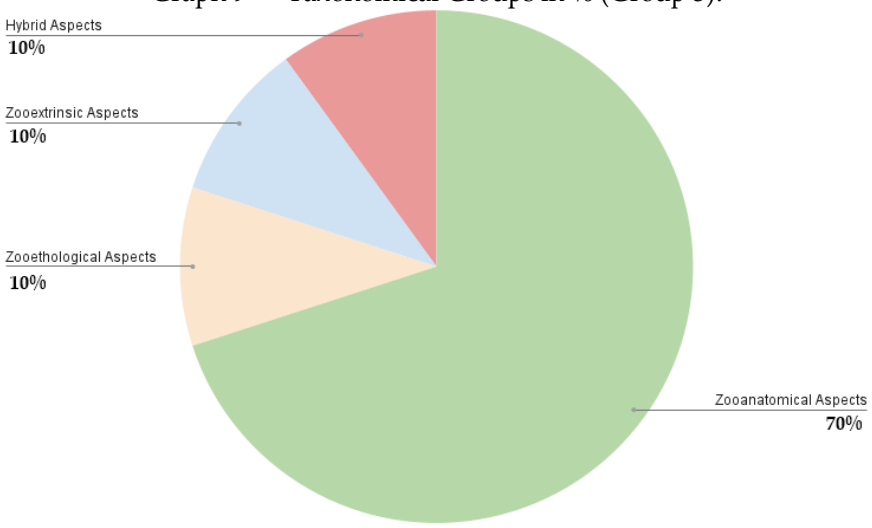
Graph 8 — Taxonomical Groups (Group 3).



Source: the author.

Like Groups 1 and 2, Group 3 also has the zooanatomical aspect as the most frequent motivation for the pet names. Six sign names were motivated by a physical characteristic of the pet as perceived by its owner. Graph 9 shows the percentages for each taxonomic group:

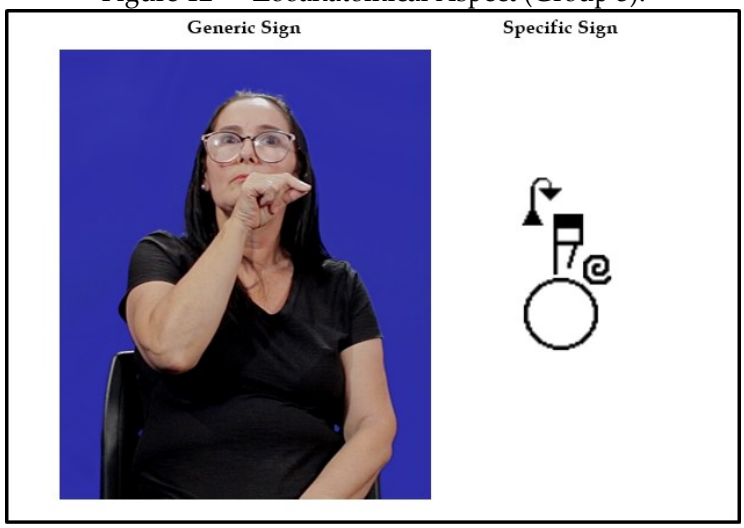
Graph 9 — Taxonomical Groups in % (Group 3).



Source: the author.

The zooanatomical aspect was present in 70% of the cases (7 signs). It included fur color, eye color, ear shape, type of fur, shell color (in the case of the tortoise), feather colors (in the case of the parrot). Figure 12 shows the data for the parrot's sign name.

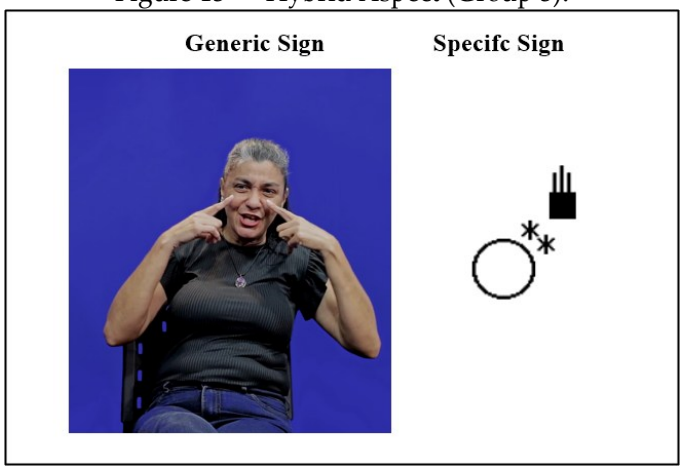
Figure 12 — Zooanatomical Aspect (Group 3).



Source: project archives.

The other aspects occurred once each: zooethological (10%), zooextrinsic (10%), and hybrid (10%). Figure 13 provides an example of a sign name with a hybrid aspect.

Figure 13 — Hybrid Aspect (Group 3).



Source: project archives.

The participant explained how she had chosen the sign:

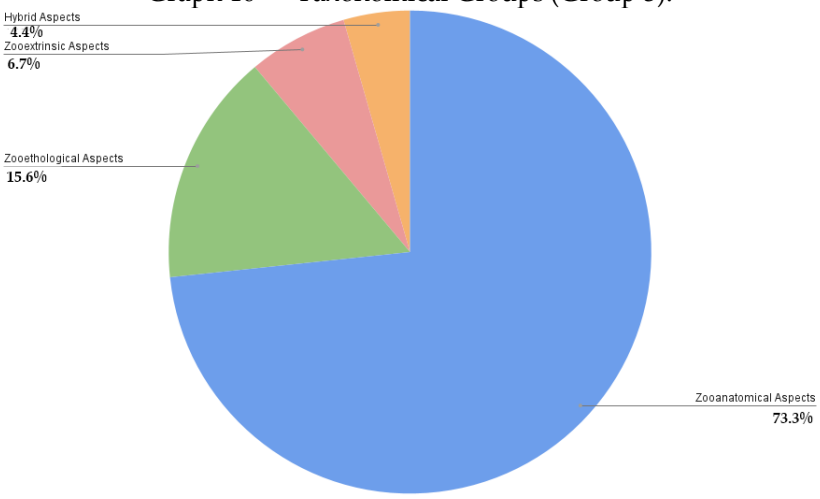
> My cat has a name in Portuguese: Mel. It was given by my daughter. Then I gave her sign name in Libras by signaling an "M" at the height of the head where she has a white mark. She's all black but has a white mark here [pointing to her own head]. That became Mel's sign in Libras. (Part-28_G3_M)

Therefore, the hybrid aspect was identified in Groups 1 and 3.

5.4 Overall

Overall, the zoonymic data in this study can be distributed as in Graph 10.

Graph 10 — Taxonomical Groups (Group 3).



Source: the author.

As can be seen, the zooanatomical aspect stands out in the Rio Branco Inventory of Libras, totaling 73.3% (33 signs). It is followed by the zooethological aspect, with 15.6% (7 signs). The zooextrinsic and the hybrid aspects totaled 6.7% (3 signs) and 4.4% (2 signs), respectively.

In addition to these, it seems to be valid to add a fifth taxonomic group (**opaque aspects**) for cases where the motivation of the zoonymic sign is not transparent, which has been reported for toponyms and anthroponyms (see Sousa 2022).

6 Final remarks

This article analyzed the signs in Libras that name the pets of 32 participants in the ongoing project Rio Branco Inventory of Libras. The analyses were based on a classification posited by Sousa (2023; 2024a; 2024b), who investigated zoonymic signs reported by deaf individuals aged 10 to 20 years. In the present study, data were provided by deaf individuals aged 18+, whose pets' names in Libras had been mainly influenced by the pets' physical (zooanatomical) characteristics, which is consistent with Sousa (2023; 2024a; 2024b). It seems that in onomastic sign-naming processes the referents' physical characteristics have played a predominant role in sign creation within Libras, which has been pointed out in prior studies of toponyms (e.g., Sousa; Quadros, 2021; Douettes, 2023), anthroponyms (i.e., Barros, 2018; Rech, 2022), ononyms (e.g., Venâncio, 2023), and theonyms (e.g., Moreira, 2023).

Unlike various analyses of proper signs in Libras in other subareas of Onomastics, Brazilian Portuguese was not much influential in the present zoonymic findings – it shone through in only 2 hybrid signs (in Groups 1 and 2) and 2 zooextrinsic signs (in Groups 1 and 3). Sousa (2023; 2024b) pointed out a similar finding regarding the influence of Brazilian Portuguese on the formation of pet sign names given by deaf individuals.

This article adds two new categories to Sousa's framework (2023; 2024b), namely: hybrid aspects (for signs that combine two or more semantic-motivational

aspects) and opaque aspects (for signs with no transparent semantic motivation, i.e., for cases in which it is not possible to recover the motivational aspect of the sign).

Zoonymic studies of Libras are still in their infancy. This article sought to contribute to the description of the onomastic lexicon in Libras and to garner the attention and interest of other researchers to expand the corpus of the National Inventory of Libras and develop comparative studies that consider different deaf communities either in Brazil or worldwide. To obtain more results, further studies could include data of deaf people from other regions in Brazil or even of deaf people of other nationalities. This would provide a larger sample to tap into how pets are named based on the characteristics of the zoonymic lexicon in sign languages.

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References

BARROS, M. E. Taxonomia antroponímica nas línguas de sinais: a motivação dos sinais-nomes. **Revista RE-UNIR**, v. 5, n. 2, p. 40-62, 2018. DOI https://doi.org/10.47209/2594-4916.v.5.n.2.p.40-62

BAZAN, B. M. **Zoonímia histórico-comparativo bantu**: as designações dos canídeos e hienídeos. 225f. Thesis (Master's in Language Sciences) — Universidade Federal de Rondônia, Guajará-Mirim, 2015.

CAMPOS, C. S. Características morfofonêmicas, morfossintáticas e léxico-semânticas da zoonímia e da fitonímia em Maxakalí. **Revista de Linguística Antropológica**, Brasília, v. 4, n. 1, p. 89-118, 2012.

CARDOSO, Z. A. Zoonímia e metassemia. **Revista Língua e Literatura**, São Paulo, v. 6, n. 1, p. 287-291, 1977. DOI https://doi.org/10.11606/issn.2594-5963.lilit.1977.115826

CHAIBUE, K. **Onomástica em Libras de Formosa** (GO). 2022. 500 f. Dissertation (PhD in Linguistics) — Universidade Federal de Goiás, Goiânia, 2022.

DOUETTES, B. B. **Topônimos bíblicos em línguas de sinais**: levantamento, catalogação e motivação linguística. 2023. 263f. Dissertation (PhD in Linguistics) — Universidade Federal de Santa Catarina, Florianópolis, 2023.

FUSELLIER-SOUZA, I. Emergence and development of signed languages: from diachronic ontogenesis to diachronic phylogenesis. **Sign Language Studies**, v. 7, n. 1, p. 30-56, 2006. DOI https://doi.org/10.1353/sls.2006.0030

GARRIDO, C. Análise de problemas e inadequações da zoonímia portuguesa utilizada na tradução de duas enciclopédias divulgadoras sobre fauna. **Confluência**, Rio de Janeiro, n. 63, p. 77-127, 2022. DOI https://doi.org/10.18364/rc.2022n63.593

GARRIDO, C. Análise do tratamento lexicográfico dos táxones zoológicos nos dicionários gerais de referência das línguas portuguesa e espanhola. **Revista de lexicografia, Coruña**, v. 18, p. 39-76, 2012. DOI https://doi.org/10.17979/rlex.2012.18.0.3769

HOMEM, N. B.; LUBWATU, M. J. Inventário zoonímico: abordagem na perspectiva sociocultural dos Ambundu. **NJINGA & SEPÉ**: Revista Internacional de Culturas, Línguas Africanas e Brasileiras, São Francisco do Conde, v. 2, n. 2, p. 95-109, 2022. Available at: https://revistas.unilab.edu.br/index.php/njingaesape/article/view/1056. Access on: 26 Feb. 2024.

KARPINSKI, M.; KRUPA, W.; GARBIEC, A.; WOJTAS, J. Zoonimia as a reflection of relationship between humans and animals. **Medcyna Weterynaryjna**, v. 76, n. 5, p. 1-5, 2020. DOI https://doi.org/10.21521/mw.6395

LEIBRING, K. Animal names. *In*: HOUGH, C. (org.). **The Oxford Handbook of Names and Naming**. Oxford: Oxford University Press, 2016. p. 662-675. DOI https://doi.org/10.1093/oxfordhb/9780199656431.013.2

MARINS, M. J. S**. Estudo toponímico português-Libras das unidades de saúde de Feira de Santana (BA)**. 2024. 145f. Dissertation (PhD in Linguistics) — Universidade Estadual de Feira de Santana, Feira de Santana, 2024.

MOREIRA, G. O. **Teonímia em Libras**: análise motivacional dos sinais que nomeiam os orixás do candomblé. 2023. 52f. Undergraduate thesis (Undergraduate teacher program in Libras) – Universidade Federal do Acre, Rio Branco, 2023.

NEETHLING, B. **Onomastics — A multidisciplinary field of study**. What's in a name? Saarbrücken: Lambert Academic Publishing, 2017.

QUADROS, R. M.; SOUSA, A. M. Brazilian Sign Language Corpus: Acre Libras Inventory. **Revista de Estudos da Linguagem**, Belo Horizonte, v. 29, n. 2, p. 805-828, 2021. Available at: www.periodicos.letras.ufmg.br/index.php/relin/article/view/17344.

RECH, G. C. **Estudo dos nomes próprios de pessoas na Libras**: onomástica e Linguística Cognitiva em diálogo. 2021. 249f. Dissertation (PhD in Linguistics) – Universidade Estadual do Oeste do Paraná, Cascavel, 2021.

SOUSA, A. M. **Toponímia em Libras**. 2019. 110f. Report (Post-Doctorate in Applied Linguistics/Libras) — Universidade Federal de Santa Catarina, Florianópolis, 2019.

SOUSA, A. M. Onomástica em Libras. *In*: SOUSA, A. M.; GARCIA, R.; SANTOS, T. C. (org.). **Perspectivas para o ensino de línguas 6**. Rio Branco: Edufac, 2022. p. 6-20.

SOUSA, A. M. **Zoonímia em Libras**: como os surdos nomeiam seus animais de estimação e proposta taxonômica. 2023. 144f. Thesis (Full Professor) — Universidade Federal do Acre, Rio Branco, 2023.

SOUSA, A. M. **Zoonímia em Libras**: como os surdos nomeiam seus animais de estimação. Campinas: Pontes, 2024a.

SOUSA, A. M. Zoonymy in Brazilian Sign Language: a semantic-motivational analysis and taxonomic proposal to classify signs given to pets by the deaf. **Onoma Journal**, Uppsala, Sweden, n. 59, p. 215–238, 2024b. DOI https://doi.org/10.34158/ONOMA.59/2024/11

SOUSA, A. M.; DARGEL, A. P. P. Onomastics: interdisciplinarity and interfaces. **Revista GTLex**, Uberlândia, v. 3, n. 1, p. 7-22, 2020. DOI https://doi.org/10.14393/Lex5-v3n1a2017-1

SOUSA, A. M.; MOREIRA, G. O. Theonymy in Brazilian sign language: the signs of orishas. **Working Papers em Linguística**, Florianópolis, v. 25, n. 1, p. 149-176, 2024. DOI https://doi.org/10.5007/1984-8420.2024.e94418

SOUZA, K. M. **Registro, descrição e análise motivacional dos sinais de cidades do estado de Goiás**: a Toponímia em Libras numa interface com a Linguística de Corpus. 2023. 340f. Dissertation (PhD in Linguistics) – Universidade Federal de Uberlândia, Uberlândia, 2023.

VENANCIO, A. A. **Onionímia em Libras**: os sinais em libras que nomeiam os estabelecimentos comerciais do Via Verde Shopping – a relação entre o sinal e a logomarca. 2023. 45f. Undergraduate thesis (Undergraduate teacher program in Libras) – Universidade Federal do Acre, Rio Branco, 2023.

YUDASSHEV, M.; ANDANIYAZOVA, D. Linguopoetics of zoonims in the literary text. **Journal of Positive School Psychology**, Selangor, Malasia, v. 6, n. 5, p. 5691-5699, 2022. Available at: https://journalppw.com/index.php/jpsp/article/view/7702/5046.