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MEANINGS AND VALUES OF THE AQUATIC LEXICONS FOUND IN BATAK TOBA “UMPASA”: AN ANTHROPOLINGUISTIC STUDY

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Abstract

Umpasa, a Batak Toba poem, is one of the varieties of traditional oral literature owned by the Toba Batak community. During a customary ritual, *umpasa* is said to be an expression or prayer made to God. Only elders or close relatives who are expressive and rhythmic in their delivery of *umpasa* are permitted to do so. This serves as a sign that the elders or relatives have a thorough understanding of the customary rite. There are many *umpasa* that use aquatic lexicons found in Batak *umpasa*, this is because Batakese live around Lake Toba, such as Samosir island, North Tapanuli region and 5 others regions. This research aimed to analyse meanings and values of *umpasa* that use aquatic lexicons found in Batak Toba. Descriptive qualitative methodology was employed in this study by using anthropolinguistic theory which studies the text and performance of oral traditions within the framework of anthropology, studying the cultural context, ideological context, social context, and situational context of oral traditions within the framework of linguistics. This approach is employed due to the fact that the data source under investigation consists of transcripts of speeches collected from documents. The research results illustrate the following. First, Batak Toba *umpasa* regulates the relationship between man and God, man and man, and man and nature. Second, the values found in aquatic lexicons *umpasa* are solidarity, kinship, wealth, commitment, gratitude, hard work, hope, health, descendants, and discipline.

Key words: *umpasa*, aquatic lexicons, anthropolinguistics, values

Abstrak

Umpasa, puisi Batak Toba, merupakan salah satu ragam sastra lisan tradisional yang dimiliki oleh masyarakat Batak Toba. Dalam suatu ritual adat, *umpasa* dikatakan sebagai ungkapan atau doa yang dipanjatkan kepada Tuhan. Hanya orang tua atau kerabat dekat yang ekspresif dan berirama dalam menyampaikan *umpasa* yang diizinkan untuk melakukannya. Hal ini berfungsi sebagai tanda bahwa orang tua atau kerabat tersebut memiliki pemahaman yang mendalam terhadap ritual adat tersebut. Ada banyak *umpasa* yang menggunakan leksikon akuatik yang terdapat dalam *umpasa* Batak. Ini karena orang Batak tinggal di sekitar Danau Toba, seperti Pulau Samosir, wilayah Tapanuli Utara dan 5 wilayah lainnya. Penelitian ini bertujuan untuk menganalisis makna dan nilai *umpasa* yang menggunakan leksikon akuatik yang terdapat dalam Batak Toba. Metodologi kualitatif deskriptif digunakan dalam penelitian ini dengan menggunakan teori antropolinguistik yang mempelajari teks dan pertunjukan tradisi lisan dalam kerangka antropologi, mempelajari konteks budaya, konteks ideologis, konteks sosial, dan konteks situasional tradisi lisan dalam kerangka linguistik. Pendekatan ini digunakan karena sumber data yang diteliti berupa transkrip tuturan yang dikumpulkan dari dokumen. Hasil penelitian menggambarkan hal-hal berikut. Pertama, *umpasa* Batak Toba mengatur hubungan antara manusia dengan Tuhan, manusia dengan manusia, manusia dengan alam. Kedua, nilai-nilai yang ditemukan dalam leksikon akuatik *umpasa* adalah nilai solidaritas, kekerabatan, kekayaan, komitmen, rasa syukur, kerja keras, harapan, kesehatan, keturunan, dan disiplin.

Kata kunci: *umpasa*, leksikon akuatik, antropolinguistik, nilai

1. Introduction

Language is a critical medium for cultural transmission, reflecting the identities, principles, and values of a community. In the context of the Batak Toba community, the Batak Toba people of North Sumatra, Indonesia, have a rich cultural heritage that is deeply intertwined with their natural environment. One of the most fascinating aspects of this heritage is their traditional oral literature, known as *Umpasa*. *Umpasa* are poetic expressions used in various social and ritual contexts, often reflecting the community's values, beliefs, and interactions with their surroundings. Fauna and flora are not just linguistic units but also convey deeper meanings pertaining to environmental philosophy, social standing, and cultural traditions, which is why they are commonly mentioned in *Umpasa* lexicon (Saragi, 2022; Sitorus & Lubis, 2023).

The aquatic lexicons within the *umpasa*, which include terms related to water bodies, aquatic life, and water-related activities, play a significant role in the Batak Toba worldview. Water, being a vital element in their daily lives and spiritual practices, is frequently referenced in *umpasa*, symbolizing various cultural and social concepts. Historically reliant on the expansive Lake Toba, the Batak Toba people, as an agrarian and fishing community, have developed linguistic expressions that showcase their profound bond with water. This research explores how the significance and values tied to aquatic vocabulary in *Umpasa* influence the wider cultural and linguistic context, employing an anthropolinguistic perspective to analyze the relationship between language and sociocultural identity.

Even though *Umpasa* is culturally significant in the Batak Toba community, a thorough investigation of the meanings and values ingrained in its aquatic lexicons is still necessary. Although the animal lexicons in *Umpasa* and their philosophical implications have been studied in the past (Saragi, 2022), there has not been much focus on the aquatic parts in this lexicon. It is essential to comprehend the aquatic vocabulary because, in traditional civilizations, aquatic plants and animals frequently have symbolic connotations that reflect social customs, ecological knowledge, and spiritual beliefs. Therefore, this study hypothesizes that the aquatic lexicon in Toba Batak *Umpasa* not only functions as a linguistic unit, but explicitly reflects the core cultural values (such as solidarity, kinship, and well-being) and worldview of the Toba Batak people, especially with regard to the relationship between humans and God, fellow humans, and nature.

Finding and analyzing the aquatic vocabulary used by Batak Toba *Umpasa* is the goal of this study, as is interpreting the philosophical, social, and cultural values these lexicons express. The study specifically aims to investigate the language functions of aquatic phrases in

Umpasa and how they represent the ecological knowledge and worldview of the Batak Toba. Through the use of content analysis and qualitative descriptive approaches, this project will advance our knowledge of language as a cultural product and its function in maintaining indigenous knowledge systems. It is anticipated that the results would ultimately contribute to the study of anthropolinguistics by illustrating how language, culture, and ecology intersect in Batak Toba oral traditions (Saragi, 2022; Sitorus & Lubis, 2023).

2. Literature Review

2.1 Previous Research on Batak Toba *Umpasa* and Lexicons

The linguistic and cultural aspects of this ancient rhyming system have been thoroughly examined in recent research on Batak Toba *umpasa*, with a special emphasis on its lexicons pertaining to natural components. In an ecolinguistic study on fauna lexicons in Batak Toba *umpasa*, Saragi (2022) found that a variety of animals, including fish, birds, snakes, and insects, are important linguistic units in the construction of *umpasa* texts. These lexicons convey a variety of philosophical values, such as meanings related to the environment, culture, and social standing, and they operate syntactically as subjects or objects (Saragi, 2022). This study emphasizes the ecological and social circumstances that are ingrained in *Umpasa*, highlighting the unbreakable bond between language and culture.

Sitorus and Lubis (2023) investigated the natural knowledge lexicons present in *umpasa*, with an emphasis on flora and fauna. The qualitative study employing Miles and Huberman's data analysis model revealed that *umpasa* functions both as a poetic expression and as a medium for conveying prayers, hopes, and cultural guidelines within the Batak Toba community. The lexicons metaphorically associate human characteristics with natural elements, thereby reinforcing the cultural identity and values of the community (Sitorus & Lubis, 2023). This study enhances comprehension of the symbolic and functional roles of natural lexicons within traditional Batak Toba literature.

Studies of anthropolinguistics have also looked at the wider effects of lexical choices in oral traditions. Maharani et al. (2023) studied the lexicon of a traditional dish called *Bubur Pedas*, demonstrating how cultural identity is reflected in food-related terminology. Although their study was primarily concerned with culinary lexicon, its methodological approach provides useful information for examining aquatic terms in *Umpasa*.

2.2 Theoretical Framework

Examining the connection between language and culture, anthropolinguistics focuses on how linguistic expressions convey social values and worldviews (Duranti, 2020). Lexical items are cultural artifacts that represent a community's lived experiences rather than just linguistic components, according to this concept (Foley, 2019). Batak Toba *Umpasa* uses an aquatic language to depict social structures, spiritual beliefs, and ecological knowledge.

By classifying words according to their conceptual relationships, semantic field theory offers a helpful method for examining the meanings of aquatic lexicon (Geeraerts, 2021). By examining these lexicons' use in communication contexts, pragmatic analysis reveals how they reinforce identity and cultural norms (Levinson, 2022). The goal of this study is to reveal the deeper meanings that are buried in *Umpasa* aquatic language by combining anthropolinguistic and semantic viewpoints.

The study also uses semiotic theory to analyze the symbolic meanings that aquatic lexicon conveys. Cultural narratives are shaped by the denotative and connotative meanings that signs in a linguistic system carry, according to Barthes (2021). Aquatic terms may be used by Batak Toba *Umpasa* as metaphors for wealth, knowledge, and ancestry, which would further support their oral traditions' significance.

2.3 Research Gap

Investigations into *Umpasa* and Batak Toba oral traditions are growing, but studies that specifically address aquatic vocabulary are still limited. The majority of current studies have focused on semiotic meanings, broad lexical examination, and cognitive semantics, leaving terminology related to water significantly unexamined. This gap restricts our comprehension of how aquatic vocabularies enhance linguistic symbolism, ecological awareness, and cultural identity. Although earlier studies have looked into the pragmatic and semantic functions of *Umpasa*, the anthropolinguistic importance of water-related vocabulary remains underexplored. Considering Lake Toba's significant importance in Batak Toba culture, a focused examination of water-related expressions might yield greater understanding of indigenous knowledge and environmental awareness. Through an extensive examination of aquatic terminology in *Umpasa* and incorporating anthropolinguistic, pragmatic, and semantic angles, this research seeks to fill these voids and add to wider conversations on the connection between language, culture, and ecological sustainability within indigenous practices.

3. Research Method

This research investigates the interpretations and cultural significance of water-related vocabulary in Batak Toba *Umpasa* by employing anthropolinguistic analysis, a qualitative methodology that delves into the connection between language and culture (Foley, 2019). The research emphasizes how verbal expressions reflect social values and perspectives, combining semantic field analysis (Geeraerts, 2021) and pragmatic interpretation (Levinson, 2022) to reveal profound meanings within aquatic vocabulary. The main data source is Dr. Richard Sinaga's *Umpasa dan Umpama Dalam Bahasa Batak Toba* (2016), providing an extensive collection of Batak Toba *Umpasa*. Thirty-one *Umpasa* were chosen from this text due to their mentions of water, marine life, and customary livelihoods, including transportation that relies on water. The linguistic diversity, symbolic importance, and common usage in Toba Batak culture guaranteed a representative sample for examination (Sitorus & Lubis, 2023).

This study utilized translation and textual analysis as essential research methods to systematically analyze these aquatic lexicons. Initially, chosen *Umpasa* underwent several reviews to guarantee precise identification of water-related expressions (Sinaga, 2016). Additionally, the aquatic terminology was translated into both English and Indonesian to facilitate cross-linguistic analysis, with a strong focus on maintaining cultural integrity during the translation (Saragih, 2020). Finally, the *Umpasa* were categorized based on semantic themes including environmental understanding, cultural ideology, and ancestral convictions (Sinaga et al., 2021). Utilizing this systematic analytical method, the investigation uncovers key semantic areas within aquatic terminology (Geeraerts, 2021), explores their significance in identity development and ceremonial activities (Duranti, 2020; Foley, 2019), and organizes them according to cultural values such as ecological consciousness, affluence, and knowledge (Sitorus & Lubis, 2023). This study offers a thorough insight into the importance of aquatic vocabulary in Batak Toba *Umpasa* by integrating lexical, anthropolinguistic, and cultural viewpoints.

4. Results and Discussion

4.1 Result

Table 1. Cultural Values Reflected in The Aquatic Umpasa

No	Cultural Values	Frequency	Percentage	Contextual Explanation	Theoretical (Brief)	Linkages
1	Solidarity	8	25.6%	<i>Ihan di pandaungan...</i> (Fish in the field...)	“Fish” symbolizes adaptability; “fence” symbolizes obstacles.	
2	Wealth	4	13%	<i>Tonggi ma sibahut, Tabo ma pora-pora...</i> (Catfish tastes sweet...)	Fish sustenance and opportunity.	
3	Kinship	4	13%	<i>Suman tu aek natio do hamu...</i> (As a clear water...)	“Clear water” symbolizes the transparency and purity of family ties. Semiotically and pragmatically, water represents the life and continuity of kinship ties, reinforcing the principle of Dalihan Natolu.	
4	Hope	3	9.7%	<i>Topi ni Aek Puli dalam tu huta Tongatonga...</i> (Coast of the Puli Lake, road to Tongatonga village)...	This is a form of prayer and hope that all the goodness that has been obtained remains intact and is not hindered in its journey.	
5	Health	3	9.7%	<i>Sahat solu, sahat di parbinsar ni ari...</i> (Arrived at the destination at sunrise)...	A healthy existence is one that is filled with spiritual awareness and blessings.	
6	Descendants	2	6.5%	<i>Tao Toba inganan ni pora-pora...</i> (Lake Toba is a place for fish to swim)...	Lake Toba symbolizes fertility and regeneration	
7	Commitment	2	6.5%	<i>Dengke ni Sabulan, Tu tonggina tu tabona...</i> (Fish from Sabulan, it tastes sweet and delicious)...	Dekke ni sabulan symbolizes attractive and high-value promises	
8	Hardworking	2	6.5%	<i>Aek dalam ni solu sian tur dalam ni hoda...</i> (Abilities bring satiety, blessings bring wealth)...	<i>Aek dalam ni solu sian tur dalam ni hoda</i> symbolizes a challenging life journey	
9	Gratitude	2	6.5%	<i>Aek na marhalisung, Mabaor tu Angkola...</i> (./ The stormy water flows to Angkola)...	Suggests a profound appreciation for protection, direction, and priceless life lessons.	

10	Discipline	1	3.2%	Aek na marhalisung. Tu aek na marhatobung...(air yang badai, air yang tenang).	discipline and the repercussions of carelessness, particularly when one is at ease due to the generosity of others
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The spread of cultural values linked to the aquatic vocabulary *Umpasa* offers insight into the significance given to various elements of Batak Toba culture, as depicted in Table 1 above. Social Solidarity stands out as the key value, occurring 8 times and constituting 25.6% of the overall, emphasizing the robust communal relationships in Batak Toba culture. Wealth and Kinship/Mutual Cooperation each occur 4 times, representing 13% each, indicating that economic stability and social bonds are vital elements of cultural stories. Hope and Health are closely linked, each having 3 mentions (9.7%), symbolizing desires for well-being and positivity. Descendants, Commitment, Hardworking, and Gratitude each appear twice, accounting for 6.5% each, highlighting the cultural significance of ancestry, dedication, effort, and thankfulness. Finally, Discipline is mentioned only once (3.22%), making it the most underrepresented value in this dataset. The percentages add up to 100%, showcasing the diverse yet equitable distribution of cultural themes in *Umpasa*. The prominence of Social Solidarity highlights the collective essence of Batak Toba customs, while the limited presence of Discipline implies that other cultural values are prioritized in aquatic language expressions. This analysis offers an organized insight into how linguistic components in *Umpasa* mirror wider social values, emphasizing the importance of water-related vocabulary in forming cultural identity and ecological awareness.

4.2 Discussion

Three values that are most prevalent among Batak Toba *Umpasa* who employ water language are solidarity, wealth, and kinship, according to the data analysis results presented in this study.

4.2.1 Cultural Value Showing Solidarity

Datum 23. *Ihan di pandaungan, sangkot sapa di parpagaran,*

(Fish in the field, caught on the fence),

Denggan do hita marsisungkunan, ringkot masiajar-ajaran.

(Asking each other is good and important for mutual learning.)

Effectively conveys the importance of solidarity and support among Batak community members. The value of unity and support among members of the Batak community is reflected in this Toba Batak *Umpasa*. The proverb highlights group knowledge, collaboration, and the interdependence of people in a society, according to anthropolinguistic theory. The metaphor of a fish caught on a fence implies that difficulties or barriers are unavoidable but that they can be surmounted with cooperation and common knowledge. Fish are a representation of adaptability and nutrition in Batak culture, but fences stand for limitations that could impede advancement. The saying implicitly meant that no one should face hardships alone; rather, seeking assistance and participating in mutual education fortifies ties within the community and guarantees its existence. The Batak cultural association of "fish" with flexibility and sustenance pragmatically reaffirms that cooperation and information sharing are the answers to this "fence" (restriction).

Additionally, the expression *Denggan do hita marsisungkunan* (Asking each other is good) underscores the Batak custom of sharing knowledge, which is intricately woven into oral traditions and social interactions. In Batak society, solidarity encompasses not just physical aid but also intellectual and emotional backing. This corresponds with Sibarani's theory of local wisdom, emphasizing harmonious relationships and cooperative learning as vital elements of indigenous knowledge systems. From a practical standpoint, this statement serves as a collective mandate and commissive, promoting mutual assistance and tying the community to that commitment. The concluding line, *Ringkot masiajar-ajaran* (Crucial for shared learning), emphasizes that knowledge and education are collective resources, intended to be shared rather than kept to oneself. In line with Foley's (2019) theory of the lexicon as a cultural artifact, this is a tangible example of how language, in the form of *Umpasa*, actively contributes to fostering unity and preserving cultural identity. In this way, these *Umpasa* not only demonstrate solidarity but also actively cultivate and reinforce it as a core value within the Toba Batak community.

4.2.2 Cultural Values Showing Wealth

Datum 16: *Tonggi ma sibahut, Tabo ma pora – pora*

(Catfish tastes sweet. Pora-pora fish tastes delicious.)

Gabe ma hita luhut, jala sude ma hita mamora.

(We all prosper, and may we become wealthy.)

This Toba Batak *Umpasa* embodies profound cultural principles of prosperity, abundance, and communal riches, emphasizing that financial success is most meaningful when enjoyed together. The depiction of catfish and *pora-pora* fish represents diverse sources of food and economic prospects, emphasizing the Batak people's ability to adapt to achieve prosperity. Semantically, the representations of *pora-pora* and catfish (*sibahut*) indicate a variety of food supplies and economic opportunities, symbolically suggesting the Batak people's versatility in attaining success. According to Bataks' custom, fish represent perseverance, innovation, and nourishment. This pragmatically emphasizes that success stems from a variety of chances, including trade, agriculture, and group cooperation. The saying *Tonggi ma sibahut, Tabo ma pora-pora* (Catfish is sweet, *Pora-pora* fish is tasty) supports Sibarani's (2020) idea of local wisdom on resource management and sustainable economic techniques in indigenous communities by subtly implying that many routes to prosperity can be equally successful.

By extending the definition of wealth beyond individual achievement, the proverb's latter part, *Gabe ma hita luhut, jala sude ma hita mamora* (We all thrive, and may we grow affluent), fosters a community-wide economic perspective. The community aspect of economic attainment is significantly highlighted in *Umpasa's* concluding section, "*Gabe ma hita luhut, jala sude ma hita mamora*" (We all thrive, and may we all become rich). The idea of sharing prosperity is shaped by a group declaration rather than just an individual prayer. Making sure that everyone benefits from prosperity—not just the wealthy minority—is a social duty rather than merely a personal objective in Batak society. This idea is consistent with current anthropolinguistic ideas, which hold that language plays a significant role in forming cooperative economic activities and social support. This *Umpasa* upholds core Batak values like communal togetherness and *gotong royong* by promoting an attitude of abundance where prosperity is shared and available to everyone. It also aligned with Barthes' (2012) theory of denotative and connotative meanings that influence cultural narratives.

4.2.3 Cultural Value Showing Kinship

Datum 13: *Suman tu aek natio do hamu, riong-riong di pinggan pasu,*

(As a clear water twirling in a bowl),

Hula-hula nabasa do hamu, na girgir mamasu-masu.

(Our nice siblings are the ones who blessed us.)

This Toba Batak *Umpasa* highlighted the mutually beneficial and balanced relationships among relatives, illuminating the deep kinship concepts in Batak culture. The image of pure water whirling in a bowl symbolizes connectivity, unity, and purity; it also shows how family bonds remain robust despite their flexibility. This is in line with the idea of local wisdom put forth by Sibarani (2012), which highlights harmonious and respectful interactions as essential principles in indigenous societies. Water usually represents life, renewal, and continuity in Batak culture, highlighting the idea that kinship is an enduring force that upholds both individuals and communities. The phrase *Suman tu aek natio do hamu, riong-riong di pinggan pasu* (As clear water spins in a bowl) suggests that family relationships should be transparent, supportive, and conflict-free, like water that flows easily in its container. This is consistent with Sibarani's idea of local wisdom, which highlights respectful relationships and harmony as fundamental values in indigenous societies. The aquatic word "water" semiotically signifies life, regeneration, and continuity, highlighting the notion that kinship is an enduring force that upholds people and communities, in keeping with Levinson's (2022) perspective on how pragmatics discloses cultural identities and norms.

The latter portion of the proverb, *Hula-hula nabasa do hamu, na girgir mamasu-masu* (Our good siblings are those who favored us), emphasizes the Bataks' belief in familial reciprocity, highlighting the exchange of blessings and kindness among relatives. In Batak culture, the *hula-hula* (maternal kin) plays an important role in preserving social balance and family duties, frequently serving as mediators and fountains of wisdom. This idea corresponds with contemporary anthropolinguistic theories that consider language a means of strengthening familial ties and cultural identity. The saying highlights that relatives ought to encourage and assist each other, promoting shared success and emotional health. This illustrates Batak principles like *gotong royong* (collaborative effort), *kerukunan* (social harmony), and cultural preservation, are vital for sustaining robust family connections. By promoting solidarity via familial blessings, this *Umpasa*

acts as a guiding principle to enhance unity, respect, and continuity across generations in Batak Toba communities.

5. Conclusion

This research has shown that aquatic lexicons in Batak Toba *Umpasa* are not just linguistic components but act as significant transmitters of cultural meanings and values. Analyzing through an anthropolinguistic perspective, the study shows that the vocabularies related to water in *Umpasa* reflect the worldview of the Batak Toba community, especially their connections with God, other people, and the natural world. The examination revealed significant cultural values reflected in these aquatic expressions, such as religious devotion, solidarity, commitment, gratitude, diligence, mutual cooperation, and welfare. Social solidarity surfaced as the foremost value, highlighting the communal essence that defines Batak Toba culture. The results emphasize the interconnection of language, tradition, and ecological settings in preserving indigenous knowledge and strengthening cultural identity, particularly in communities deeply connected to their natural environments like those near Lake Toba.

Although this study has shed light on the values and meanings of aquatic lexicons in Batak Toba *Umpasa*, it might be expanded by comparing them to aquatic lexicons found in the oral traditions of other ethnic groups in Indonesia. Future studies should also examine how these lexicons have dynamically changed in Batak Toba society today, especially in response to industrialization and environmental shifts. The anthropolinguistic discussion on language, culture, and ecological sustainability could be enhanced by using participatory techniques or ethnographic fieldwork to gain a deeper knowledge of how these aquatic expressions are performed, understood, and passed down through the generations.

References

- Barthes, R. (2012). *Elemen-elemen semiologi*. Basabasi.
- Duranti, A. (2020). *The anthropology of language: An introduction to linguistic anthropology*. Wiley-Blackwell.
- Foley, W. A. (2019). *Anthropolinguistics: Language and culture in context*. Cambridge University Press.
- Geeraerts, D. (2021). *Theories of lexical semantics*. Oxford University Press.
- Levinson, S. C. (2022). *Pragmatics and cultural meaning*. Routledge.
- Maharani, R., Sitorus, A., & Lubis, F. (2023). *Indigenous knowledge and linguistic preservation in Batak oral traditions*. *Journal of Ethnolinguistics*, 15(2), 45-67.
- Saragih, B. (2020). *Metaphorical expressions in Batak Toba proverbs: A cognitive semantics approach*. *Linguistic Inquiry*, 12(3), 78-95.
- Sinaga, R., Lubis, F., & Sitorus, A. (2021). *Semiotic analysis of Umpasa: Cultural values in Batak oral traditions*. *Journal of Anthropinguistics*, 10(1), 33-56.
- Sitorus, A., & Lubis, F. (2023). *Environmental knowledge in Batak Toba oral traditions: A lexical study*. *Journal of Indigenous Linguistics*, 18(4), 112-130.
- Saragi, D. M. (2022). Lexicons of fauna in Batak Toba Umpasa: A study of ecolinguistics. *Jurnal Scientia*, 11(02), 82-91.
- Sibarani, R. (2020, April). Developing friendly city and friendly village based on local culture: An Anthropolinguistic Study. In *IOP Conference Series: Earth and Environmental Science* (Vol. 452, No. 1, p. 012062). IOP Publishing.
- Sitorus, N., & Lubis, T. (2023). The lexicon on natural knowledge of Umpasa in Batak Toba. *Tradition and Modernity of Humanity*, 3(1), 28-34.