



Naturalistic Ecolinguistics Learning Model in the Framework of Green Ecology: Development Urgencies

Model Pembelajaran Ekolinguistik Naturalistik dalam Rangka Green Ecology: Urgensi Pengembangan

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Abstract: Extreme weather phenomena have become more frequent, and the natural environment has suffered due to rampant deforestation, logging, and unchecked forest clearance. These issues have captured global attention. The primary objective of this research is to underscore the necessity for the formulation of a naturalistic ecolinguistic learning paradigm. This study is rooted in ecolinguistic theory, specifically focusing on naturalistic ecolinguistics and the creation of educational materials for higher education institutions. The research methodology employed in this investigation is characterized as descriptive quantitative research, incorporating basic statistical techniques. The target population comprises students enrolled in the language education master's program, particularly those who have participated in courses on ecolinguistics, particularly the naturalistic branch. Through purposive selection, a sample size of 30 respondents, consisting of current students and alumni from Sanata Dharma University's Master of Language Education program, who have undergone training in naturalistic ecolinguistics, was determined. Participants were presented with a series of 20 statements, rated on a Likert scale, soliciting their agreement or disagreement. The findings reveal an overwhelming consensus among respondents, with approximately 90% expressing support for the development of a naturalistic ecolinguistic learning model. The prevailing sentiment is that this initiative is of utmost importance, aligning with the university's commitment to the green ecology program.

Keywords: Learning Model Design; Naturalistic Ecolinguistics; Green Ecology

Abstrak: Kondisi cuaca dan iklim yang semakin ekstrem, serta kerusakan lingkungan alam akibat perusakan, penebangan hutan yang tidak terkontrol, saat ini telah menjadi sorotan dunia. Penelitian ini bertujuan untuk menguraikan kebutuhan pengembangan model pembelajaran ekolinguistik yang memasukkan dimensi naturalistik. Dasar teori yang digunakan dalam penelitian ini adalah teori ekolinguistik, terutama fokus pada pendekatan ekolinguistik naturalistik, dan teori pengembangan materi ajar di lingkungan perguruan tinggi. Pendekatan metodologi yang diadopsi dalam penelitian ini adalah pendekatan deskriptif kuantitatif dengan menerapkan metode statistik yang sederhana. Populasi dalam penelitian ini adalah mahasiswa program magister pendidikan bahasa yang pernah mengambil mata kuliah ekolinguistik, terutama yang berfokus pada pendekatan ekolinguistik naturalistik. Sampel penelitian ini dipilih secara sengaja dengan jumlah total 30 responden. Mereka adalah mahasiswa dan lulusan Program Magister Pendidikan Bahasa di Universitas Sanata Dharma yang telah mengikuti mata kuliah ekolinguistik naturalistik. Responden diminta untuk menanggapi 20 pernyataan menggunakan skala Likert untuk mengungkapkan persetujuan atau ketidaksetujuan. Hasil dari penelitian ini menunjukkan bahwa pengembangan model pembelajaran ekolinguistik naturalistik sangat mendesak untuk dilakukan. Dengan dominannya, sekitar 90% dari responden

menunjukkan dukungan terhadap rencana pengembangan model pembelajaran ini sebagai bagian dari upaya mendukung program ekologi hijau yang diimplementasikan oleh universitas.

Kata kunci: Desain Model Pembelajaran; Ekolinguistik Naturalistik; Ekolinguistik; Green Ecology

1. Introduction

The apprehensions surrounding the condition of the Earth and the cosmos, which are no longer disregarded, the degradation of the atmosphere and air quality leading to hazardous climatic conditions, and the degradation of the natural environment due to destructive activities like deforestation and unregulated forest clearance, have gained widespread recognition. This issue has captured global awareness (Do Couto, 2014). All components have made efforts to contribute towards the restoration of the universe, aiming to reestablish its hospitable nature for humanity, who resides within it.

Two facets of ecolinguistics are introduced in ecolinguistics lectures within the Indonesian Language Education Masters Study Program: Metaphorical Ecolinguistics and Naturalistic Ecolinguistics (Luardini & Simbolon, 2016; Steffensen & Fill, 2014). The initial variant, Metaphorical Ecolinguistics, arises as a response to the exclusive and formal analyses conducted by structural linguists. From the structural linguistic standpoint, language is perceived as a uniform and self-contained entity, devoid of any association with the individuals who utilize the language or the socio-cultural milieu in which the language evolves and matures.

Euinar Haugen can be regarded as a pivotal figure in initiating the viewpoint that language coexists within its surroundings. According to his stance, language maintains a perpetual ecological presence. This gave rise to the emergence of the Language Ecology perspective, wherein Haugen conceives the language environment as encompassing the social dimensions that facilitate its growth and maturation (Helmon & Rahardi, 2020a; Luardini & Simbolon, 2016; Urlica et al., 2021).

Drawing from the social semiotics framework formulated by M.A.K. Halliday, Ecolinguistics, initially rooted in a metaphorical context, evolves into Ecolinguistics with a naturalistic dimension (Trinh et al., 2017). It is within this latter form of ecolinguistics that a profound connection is established with the global ecological advocacy that has been echoed by diverse stakeholders worldwide (Abdulrahman Almurashi, 2016; Trinh et al., 2017). Naturalistic ecolinguistics is frequently construed as a form of environmentalism due to its profound concern for the tangible and life-sustaining natural environment (Abdulrahman Almurashi, 2016; Trinh et al., 2017).

First, linguistic studies in the perspective of Naturalistic Ecolinguistics conducted by Wiya Suktiningsih. The results of this study have been published in *RETORIKA: Journal of Linguistics*, Vol. 2, No.1 April 2016, 138-156. This Naturalistic Ecolinguistic Study related to the fauna lexicons in the Sundanese people is entitled "The Fauna Lexicon of the Sundanese Community: Ecolinguistic Studies." In this research, the reciprocal relationship between humans and humans, humans and the natural surroundings is described, and

the relationships that are formed can actually produce certain varieties of language in ecolinguistic studies.

Second, the Naturalistic Ecolinguistic study conducted by Erwita Nurdiyanto, Gita Anggria Resticka, and Sri Nani Hari Yanti. The study was entitled "Dove Ecolexicon as a Supplement to Environmental-Based Language Learning: An Ecolinguistic Perspective". This study from an ecolinguistic perspective has been published in the journal SEMIOTIKA Volume 23 Number 1, January 2022. In this study, it has been explained in detail that diversity in ecolinguistics is a source of language richness and language development, especially at the level of lexicon, grammar and metaphorical expressions.

As a foundational framework, it is crucial to underline that language ecology subsequently evolves into Ecolinguistics, branching into both Natural Ecolinguistics and Metaphorical Ecolinguistics. The perspective of Natural Ecolinguistics is often referred to as envirolinguistics, whereas the metaphorical dimension is typically termed as ecolinguistics (Helmon & Rahardi, 2020b; K. Rahardi & Setyaningsih, 2019; Suweta, 2013). Within the framework of the research being undertaken, a scarcity of writings regarding ecolinguistics in Indonesian literature and journals is evident. This is a matter of concern within the realm of language and literature education in Indonesia.

Einar Haugen has stressed that ecolinguistics constitutes a natural evolution within the landscape of interdisciplinary linguistic studies. This progression extends to encompass even subfields within linguistic interdisciplinarity, including sociolinguistics, ethnolinguistics, and anthropolinguistics, all converging into the realm of Metaphorical Ecolinguistics (Luardini & Simbolon, 2016; Suweta, 2013).

Additionally, language maintains a close connection with human rights issues, which has led to the emergence of the term "linguistic human rights." The examination of linguistic human rights and forensic linguistics, especially in relation to legal and regulatory language, can also be regarded as a facet within the domain of metaphorical ecolinguistic studies (Helmon & Rahardi, 2020b).

Furthermore, related to language learning, the praxis of language learning at various levels of education actually contains five basic concepts. The five basic concepts in learning hierarchically include: (1) paradigms, (2) approaches, (3) models, (4) methods, and (5) techniques (Bardovi-Harlig, 1996; Bou-Franch & Garcés-Conejos, 2003; Richards, 2013). Apart from being hierarchical, the five concepts are closely related to one another.

The learning paradigm can be said to be at the highest level because it contains philosophical or philosophical dimensions. Something that is philosophical or philosophical in nature certainly contains essence, namely the nature of learning the language itself (Cohen, 2016; Orsini-Jones et al., 2017b, 2017a). So, usually the learning paradigm cannot be separated from philosophical schools, which incidentally are also very close to the language itself.

Furthermore, the hierarchical aspect that is under the learning paradigm is approach. relation to language learning, the assumptions in question are related to assumptions about what the true nature of language is and what assumptions are about the true nature of language learning (Saddhono, 2015; Urlica et al., 2021). So, the most important thing in the communicative approach is getting the meaning across. The shape dimension, which is essentially related to accuracy, is slightly neglected (R. K. Rahardi, 2022a).

The essence of learning a language is learning to communicate and interact. Therefore, learning activities and materials also focus on enabling language learners to practice communicating and interacting. Thus, it can be emphasized that the communicative approach is based on the assumption of language learning as a vehicle for training learners to be able to communicate and interact with each other (Duda & Nycz, 2022; Urlica et al., 2021; Yus, 2018). Communicating and interacting requires understanding the social aspects of communication, understanding notions in communicating and interacting, not based on linguistic forms and the accuracy of the use of linguistic structures (Arvedsen & Hassert, 2020).

The level under the language learning approach that focuses on language assumptions and language learning as described above is the language learning model. The steps in the form of a collection of language learning syntax cannot be separated from the established language learning paradigm and language learning approach (Loh & Walsh, 2021; Science et al., 2017).

The level under the hierarchical approach is the learning model. There are various language learning models, for example cooperative learning models, inquiry learning models, problem-based learning models, and other learning models. The learning models they convey have their own characteristics, and are aimed at achieving different goals according to the nature of the competencies to be achieved by learners. Therefore, the syntax for each learning model is also not the same. The different syntaxes are then procedurally expressed in the form of learning methods. So, the level that will follow after the model is the learning method.

As stated earlier, the learning method is procedural. Even though it is procedural as a description of the syntax that has been formulated in the learning model, the learning method is also inseparable from language assumptions and language learning assumptions as formulated in the learning approach (Altikriti & Obaidat, 2017; Rahardi, 2022b; Richards, 2013). The most implementable level in the overall learning is the learning technique. Technique is at the lowest level, the learning technique formulated cannot be separated from the steps of the learning method, and the learning technique is always adapted to the needs of the object (Afzaal et al., 2019; Setyaningsih & Rahardi, 2018; Taverniers, 2011).

Based on the background of the problems presented above, the research problems in the Green Ecology thematic scheme are formulated as follows: What are the needs for developing the design of the Naturalistic Ecolinguistic learning model for the Indonesian Language Education Masters Program. In line with the formulation of the problem presented above, the objectives of this study were formulated as follows: To describe the

need for developing the design of a Naturalistic Ecolinguistic Learning Model for the Masters Program in Indonesian Language Education.

2. Method

The foundation of this research is rooted in the ecolinguistic theory, with a particular emphasis on naturalistic ecolinguistics and the theory related to the creation of educational materials in higher education settings. The research methodology employed is descriptive quantitative research, utilizing straightforward statistical techniques (Alison Mackey, 2005; Chen, 2017; Morgan, 2014).

The study's target population consisted of students enrolled in the language education master's program, specifically those who had participated in ecolinguistics courses, particularly focusing on naturalistic ecolinguistics. The research sample was purposively selected and comprised a total of 30 participants. These individuals were either current students or graduates of the Master of Language Education program at Sanata Dharma University, all of whom had taken part in courses related to naturalistic ecolinguistics. The respondents were presented with a set of 20 statements, to which they were required to indicate their agreement or disagreement using a Likert scale.

In addition, participants provided their responses to the statements using a Google Form, and the collected data were subsequently analyzed and visually presented in the form of diagrams. Each response to the individual question items from the preliminary study was carefully interpreted to gain a comprehensive understanding of the necessity for developing a naturalistic ecolinguistic learning model. This development aims to align with and reinforce the university's environmentally-conscious initiative known as the green psychology program.

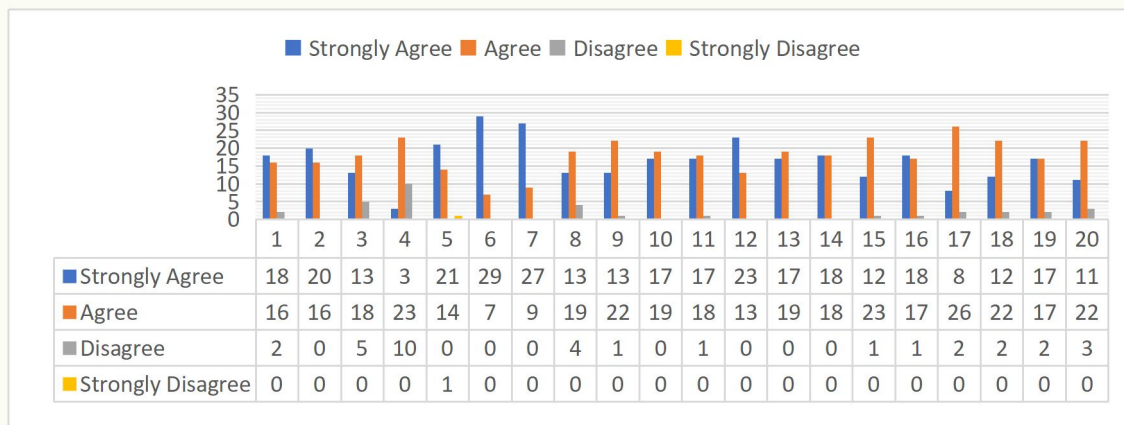
After conducting a thorough and meticulous examination of the data's meaning and interpretation, the subsequent phase of this study involves the presentation of the analysis results. This presentation employs a combination of formal and informal approaches. It entails the use of diagrams accompanied by narratives that elucidate the significance and interpretation of each component represented within the diagrams.

3. Results and Discussion

The research aimed to attain insights regarding the development of a naturalistic ecolinguistic learning model. Through the utilization of a Google Form as a research tool, questionnaires were disseminated among students and alumni of the Indonesian language and literature education study program, spanning various regions within the archipelago. These participants had all undergone ecolinguistics courses in the master's program and possessed an understanding of the significance of integrating environmental aspects into ecolinguistic learning. Notably, the responses from the participants overwhelmingly underscored the imperative nature of promptly crafting a novel ecolinguistic learning model. This development holds substantial importance in bolstering the university's green ecology program. The outcomes of the preliminary research, aimed at gauging the significance and urgency of the ecolinguistic learning model's development

plan to align with the university's green ecology program, are graphically presented as follows.

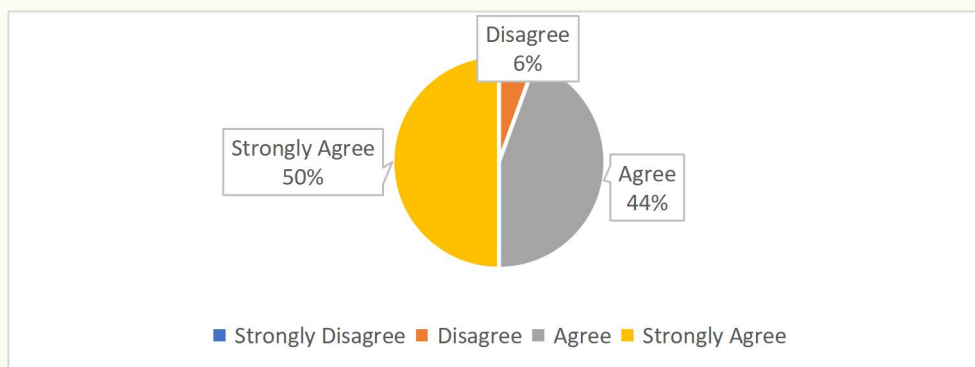
Table 1. The Need for Developing an Ecolinguistic Learning Model



Furthermore, each item in the table above is interpreted and interpreted one by one. Through the interpretation, it becomes very clear that the need to develop an ecolinguistic learning model is urgent to do. In the following section, the discussion of each questioner item submitted to the respondent is explained in detail.

1. I have attended Ecolinguistics lectures in the Masters Program and understand the substance of Naturalistic Ecolinguistics.

Fig. 1. Understanding the essence of naturalistic ecolinguistics

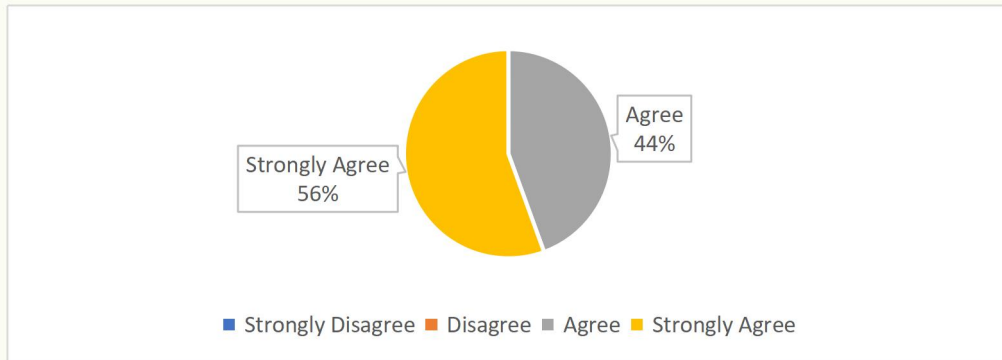


Within the Indonesian Language Education Master's Program, Ecolinguistics is a mandatory subject. Ecolinguistics, an interdisciplinary field pioneered by Einar Haugen, establishes a connection between ecology and language. Here, the environment is perceived as a community of language users that functions as one of the language codes. Ecolinguistics is categorized into two types, one of which is Naturalist Ecolinguistics. In the realm of naturalist ecolinguistics, language and the environment intertwine, influencing language evolution, which subsequently affects how language users engage with their surroundings (Mühlhäusler, 2013; Wei, 2018). Through Sanata Dharma University's green ecology program, Naturalist Ecolinguistic learning contributes to environmental conservation efforts. The diagram's findings indicate that 50% of respondents expressed strong agreement, while 44% indicated agreement with the provided statement.

Conversely, 6% of respondents disagreed with the statement. Consequently, it can be inferred that a majority of respondents have participated in Ecolinguistics lectures within the Master's Program, showcasing their comprehension of Naturalistic Ecolinguistics' essence.

2. I am aware that Naturalistic Ecolinguistics supports the green ecology program of Sanata Dharma University.

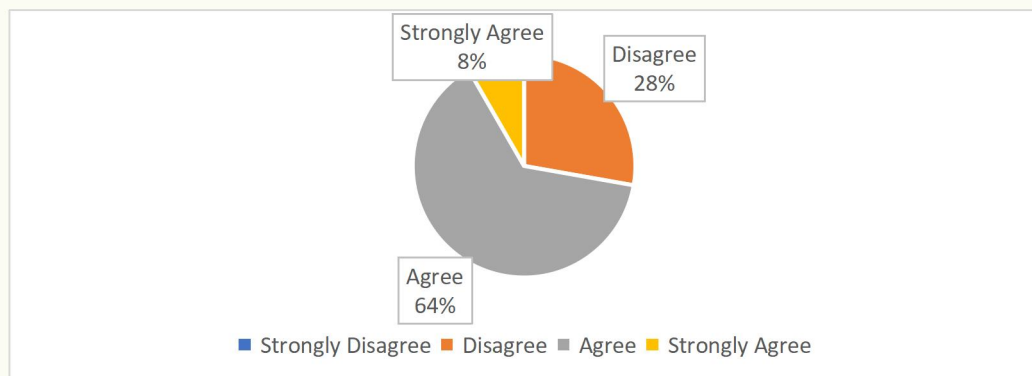
Fig. 2. Awareness of supports the green ecology program



Naturalist ecolinguistics encompasses language aspects intertwined with the environment, influencing language shifts that subsequently impact the behavior of the language community towards their surroundings (Luardini & Simbolon, 2016). Within Sanata Dharma University's green ecology program, Naturalist Ecolinguistic learning actively contributes to environmental conservation endeavors. In this context, Naturalistic Ecolinguistic learning serves to bolster the green ecology program established by the university. The preservation of biodiversity is a focal point of Naturalist Ecolinguistic learning, ensuring that the wealth of knowledge regarding environmental diversity is safeguarded for future generations. The outcomes illustrated in the diagram reveal that 56% of respondents strongly agreed with the statement, while 44% expressed agreement. This implies that all respondents recognize the role of Naturalistic Ecolinguistics in supporting Sanata Dharma University's green ecology program.

3. The ongoing ecolinguistic learning supports the Sanata Dharma University's green ecology program.

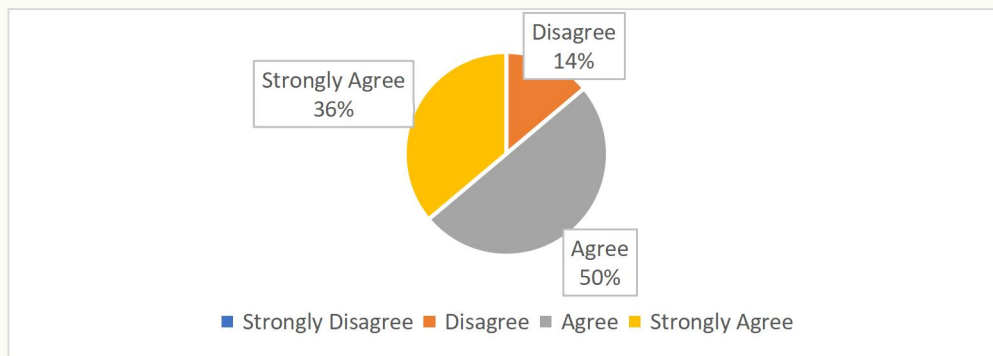
Fig. 3. The ongoing ecolinguistic learning supports to green ecology program.



The Ecolinguistics learning within the Masters Program that has been investigated thus far encompasses the fusion of ecology and language. Ecolinguistic learning contributes to the promotion of biodiversity within the respective domains of each student. This practical implementation is exemplified through the generation of journal articles that emphasize both biodiversity and culture specific to each student's area (Krismonita Permatasari & Kunjana Rahardi, n.d.). The inculcation of values related to environmental preservation serves to endorse Sanata Dharma University's green ecology program. The findings presented in the diagram indicate that 36% of respondents strongly supported the statement, with an additional 50% expressing agreement. Conversely, 14% of respondents disagreed with the statement. Hence, it can be deduced that a majority of respondents concur that the ongoing ecolinguistic learning substantiates the green ecology program at Sanata Dharma University.

4. The existing naturalistic eco-linguistics teaching materials are not optimal to help me understand the need for integration of naturalistic materials to support the Sanata Dharma University's green ecology program

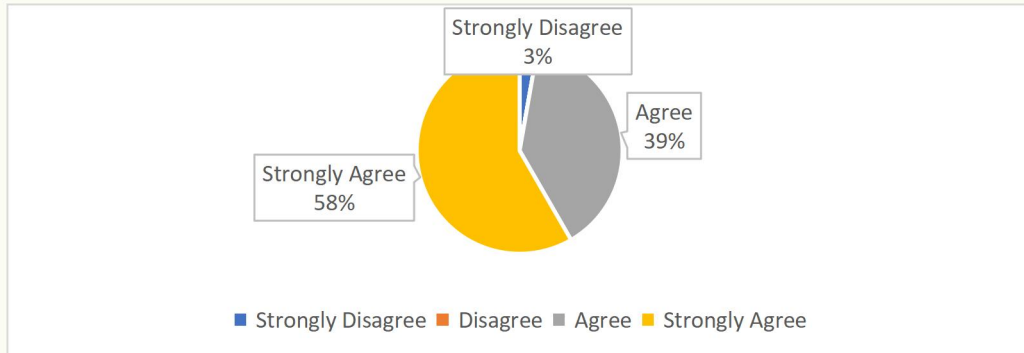
Fig. 4. The existing naturalistic eco-linguistics teaching materials and the need for integration of naturalistic



The observation that the current Naturalist Ecolinguistics materials are overly conceptual and lack integration with the local biodiversity underscores the necessity for the creation of textbooks infused with local wisdom values (Suweta, 2013). The proposed educational materials will specifically address the development of learning frameworks for Naturalistic Ecolinguistics courses. Additionally, these materials will delve into the integration of the findings from Naturalistic Ecolinguistics studies into the design of teaching materials for the Indonesian Language Education Masters Program. Notably, this integration will be especially pertinent to the incorporation of the green ecology program. The diagram's results show that 28% of respondents strongly agreed with the statement, while an additional 64% expressed agreement. Conversely, 8% of respondents held a contrary view. Hence, it can be concluded that the majority of respondents concur that the existing teaching materials for Naturalistic Ecolinguistics are not optimally aiding their understanding of the imperative to integrate naturalistic content in support of Sanata Dharma University's green ecology program.

- I need an Ecolinguistics textbook with an environmental dimension that is integrated with materials that support the green ecology program.

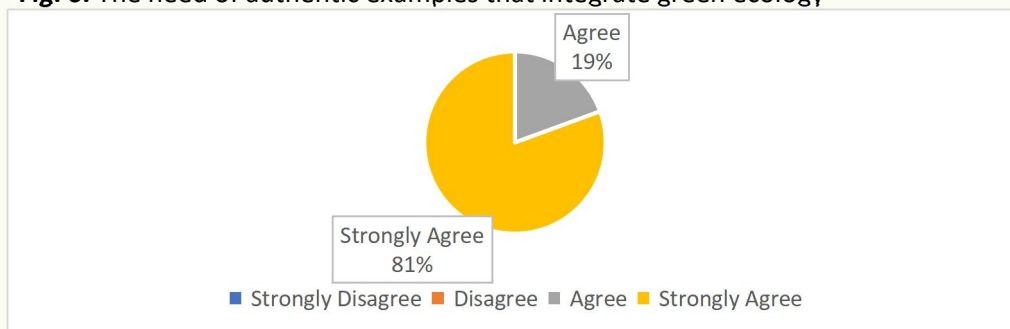
Fig. 5. The need of an ecolinguistics textbook with an environmental dimension



The ecolinguistic textbooks that students have studied so far do not integrate the green ecology program. Ecolinguistic textbooks only stop at delivering material content that is only conceptual in nature without being integrated into efforts to preserve the environment in the green ecology program. Existing textbooks do not promote efforts to preserve biodiversity in their respective regional cultures (Mühlhäusler, 2013). The results of the diagram above show that as many as 56% of respondents stated that they strongly agreed and as many as 39% of respondents agreed with this statement. However, as many as 3% of respondents strongly disagreed with this statement. Thus, it can be concluded that respondents need ecolinguistic textbooks with environmental dimensions that are integrated with materials that support the green ecology program.

- It will be very helpful for me to understand ecolinguistics if the presentation is accompanied by authentic examples that integrate green ecology

Fig. 6. The need of authentic examples that integrate green ecology

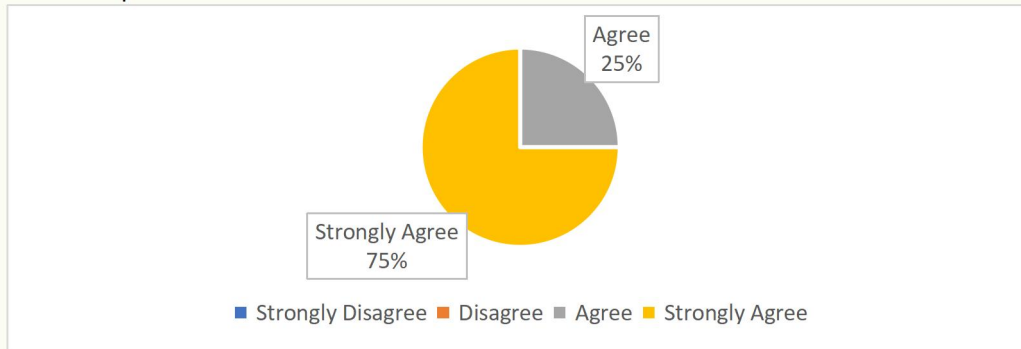


In the ecolinguistic learning process, authentic examples relating to biodiversity need to be elaborated with conceptual theory. Conceptual material that is abstract when elaborated with authentic examples will add to students' understanding and insight. If students have understood the nature of the ecolinguistic dimension, students can implement this material in making mini research in lectures (Jacobs, 2017). The results of the diagram above state that as many as 81% of respondents stated that they strongly agreed and as many as 19% of respondents agreed with this statement. Thus, it can be

concluded that respondents need authentic examples in understanding ecolinguistics that integrate green ecology.

7. I need a Naturalistic Ecolinguistic learning model design with authentic examples of the use of language in virtual public spaces and real public spaces.

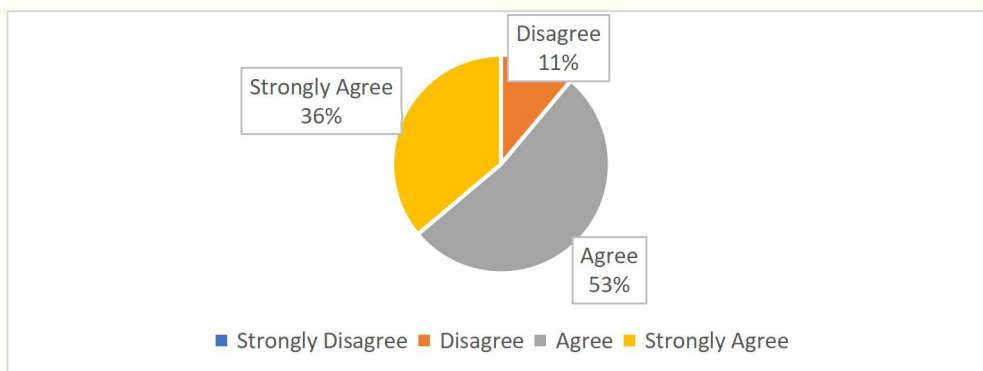
Fig. 7. The need of a naturalistic ecolinguistic learning model design with authentic examples



The Naturalistic Ecolinguistic learning model so far has not linked concrete examples of the use of language in virtual public spaces and real public spaces. Meanwhile, the reality of learning today is that real and virtual public spaces have developed very rapidly and cannot be separated from the role of the media (Salzinger, 2013). The integration of examples of language use in virtual public spaces and rubrics has a real impact on students' knowledge insights in responding to phenomena that are on the rise, especially in the ecological sphere. The results of the diagram above show that as many as 75% of respondents stated that they strongly agreed and as many as 25% of respondents agreed with this statement. Thus, it can be concluded that all respondents need a Naturalistic Ecolinguistic learning model design with authentic examples of the use of language in virtual public spaces and real public spaces.

8. I understand the concept of Naturalistic Ecolinguistics in the design of Ecolinguistic learning models that integrate aspects of language and culture at an ecological level.

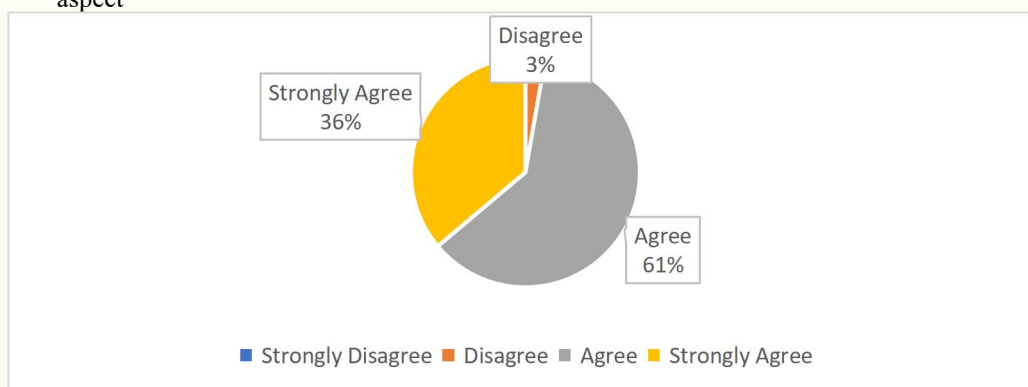
Fig. 8. Understanding the design of ecolinguistic learning models that integrate aspects of language and culture at an ecological level



The concept of ecolinguistic learning integrates ecological aspects with flora/fauna, and all mineral content contained in the cultural environment where a language is used. So that the meaning of a language towards flora and fauna can later influence the interaction of language with its environment (Sesi Bitu & Rahardi, 2020). The results of the diagram above show that as many as 36% of respondents stated that they strongly agreed and as many as 53% of respondents agreed with this statement. However, as many as 11% of respondents said they did not agree with this statement. Thus, it can be concluded that the respondents understand the concept of Naturalistic Ecolinguistics in the design of an Ecolinguistic learning model that integrates aspects of language and culture at the ecological level.

9. I understand the interrelationship between the language aspect and the ecological aspect which describes the reciprocal relationship between people and their environment

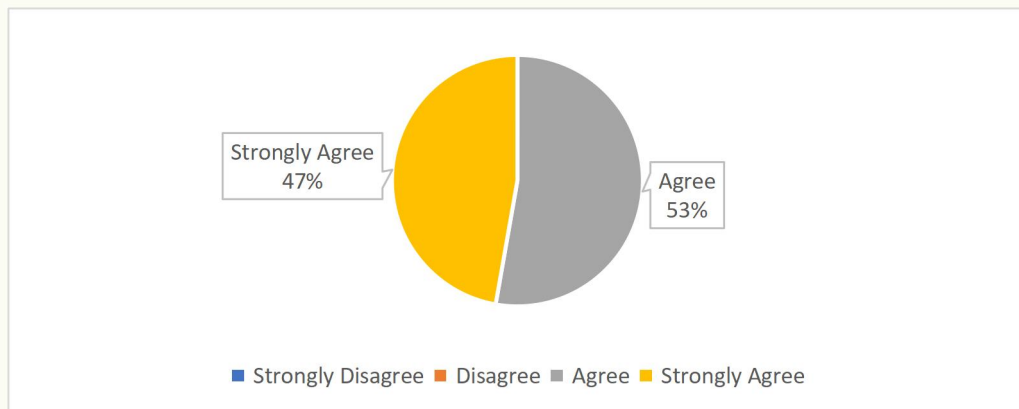
Fig. 9. Understanding the interrelationship between the language aspect and the ecological aspect



Aspects of language and ecology in ecolinguistics have a reciprocal relationship in ecolinguistics. This relationship is reflected in the use of the names of flora, fauna and other biodiversity when humans communicate with each other. The use of this name is related to entities that make up the physical environment, language relations and the environment are also formed as a result of the society that shapes human life thinking including beliefs, religion, politics, social, economics, and so on (Dahlani et al., 2015). The results of the diagram above show that as many as 36% of respondents stated that they strongly agreed and as many as 61% of respondents agreed with this statement. However, as many as 3% of respondents said they did not agree with this statement. Thus, it can be concluded that the respondents understand the relationship between language aspects and ecological aspects which describe the reciprocal relationship of the community in their environment.

10. The aspect of language and the language environment in the design of the Ecolinguistics model is the most important thing for me to understand the textbook.

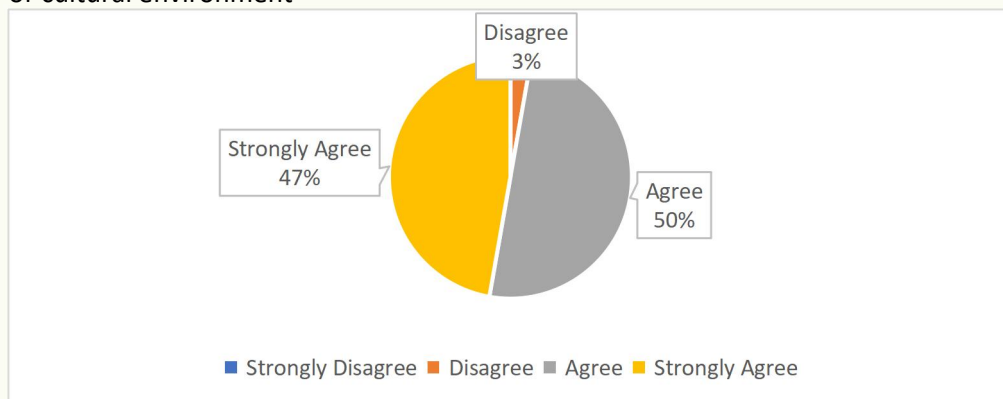
Fig. 10. The aspect of language and the language environment in the design of the ecolinguistics model



Aspects of language and the language environment are the main things highlighted in Ecolinguistics. Changes in language, both in the field of lexicon and grammar, cannot be separated from changes in the natural and social (cultural) environment of the people. Environmental changes have an impact on language changes, and on the other hand, people's behavior towards their environment is influenced by the language they use. The results of the diagram above show that as many as 47% of respondents stated that they strongly agreed and as many as 53% of respondents agreed with this statement. Thus, it can be concluded that the respondents understand the aspects of language and the language environment in the ecolinguistic model design which is the most important thing.

11. I understand that the vocabulary of a language is derived from the physical and social or cultural environment in which the language is used.

Fig. 11. Understanding the vocabulary of a language derived from the physical and social or cultural environment

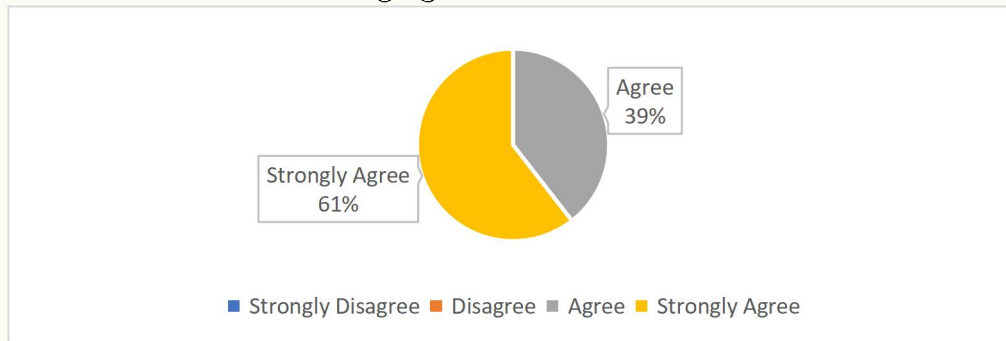


The vocabulary of a language from the physical environment and social culture of the community is used as a term to refer to certain objects. The environment plays an important role in language development. The richness of language appears in the richness of its natural environment, such as lexicons related to ecology (LeVasseur, 2015) . The results of the diagram above show that as many as 47% of respondents stated that they strongly agreed and as many as 50% of respondents agreed with this statement. However,

as many as 3% of respondents said they did not agree with this statement. Thus, it can be concluded that respondents understand the vocabulary of a language from the physical and social environment or culture where the language is used.

- Environment-based language learning can represent biodiversity in certain environments and local languages by supporting the green ecology program.

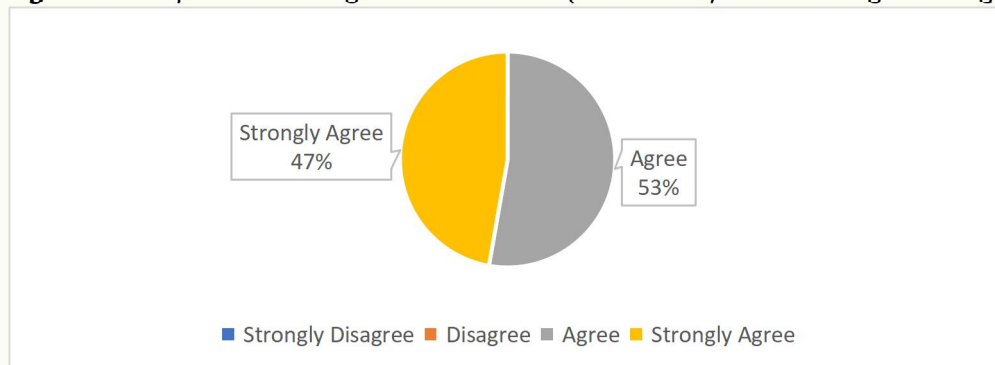
Fig. 12. Environment-based language learning representing biodiversity in certain environments and local languages



Anthropo-linguistic learning indirectly makes students enrich their insights on various kinds of traditions and regional diversity of Indonesia. In addition, students can know the local languages of various regional cultural traditions. Of course, it can support the green ecology program as a medium for preserving various cultures and biodiversity in the region (Picket & Dando, 2019). The results of the diagram above show that as many as 61% of respondents stated that they strongly agreed and as many as 39% of respondents agreed with this statement. Thus, it can be concluded that respondents understand that environment-based language learning can represent biodiversity in certain environments and local languages by supporting the green ecology program.

- The concept of the biological environment (naturalistic) affects changes in language which has an impact on the behavior of language users in treating their environment.

Fig. 13. Concept of the biological environment (naturalistic) affects changes in language

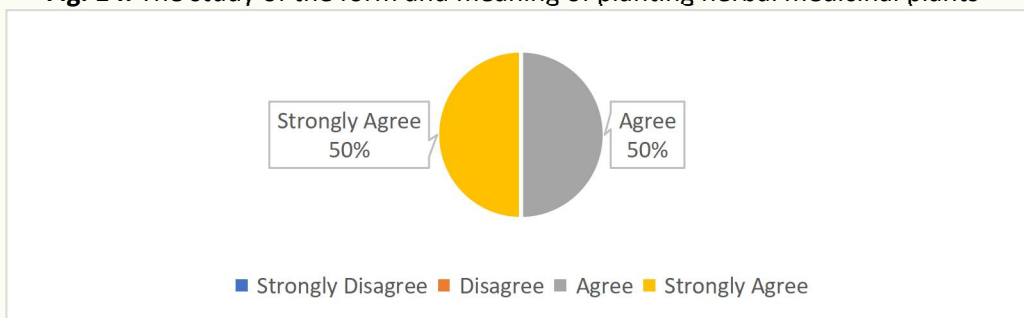


Environmental changes that occur also affect changes in language which have an impact on the behavior of people who use that language in treating their environment. This understanding is in line with environmental parameters that relate between ecology and

flora/fauna, and all the mineral content contained in the ecological environment, including the physical environment and the social environment or cultural environment where a language exists and is used (Chaiphar et al., 2013). The results of the diagram above show that as many as 47% of respondents stated that they strongly agreed and as many as 53% of respondents agreed with this statement. Thus, it can be concluded that the respondents understand the concept of the biological environment (naturalistic) influencing changes in language which have an impact on the behavior of language users in treating their environment.

14. The study of the form and meaning of planting herbal medicinal plants is important for students in supporting the green ecology program at Sanata Dharma University Yogyakarta

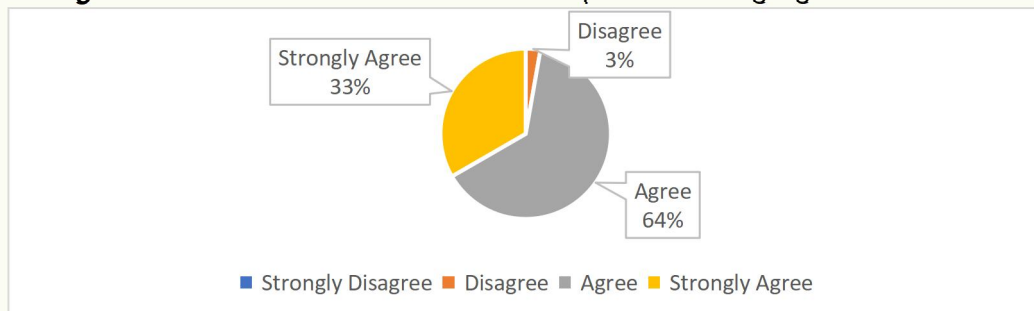
Fig. 14. The study of the form and meaning of planting herbal medicinal plants



The study of the form and meaning of planting herbal medicinal plants is a study of ecolinguistics. The ability to recognize and understand the physical form and biological condition of a plant's name will go hand in hand with the people's perspective on the special functions of the plant in terms of traditional medicine (Döring et al., 1999). The results of the diagram above show that as much as 50% of respondents stated that they strongly agreed and as many as 50% of respondents agreed with this statement. Thus, it can be concluded that the respondents understand the study of the form and meaning of planting herbal medicinal plants important for students in supporting the green ecology program at Sanata Dharma University, Yogyakarta.

15. I understand that the interrelationship between language and the environment refers to the naming of herbal medicinal plants in the environment in support of the green ecology program at Sanata Dharma University, Yogyakarta

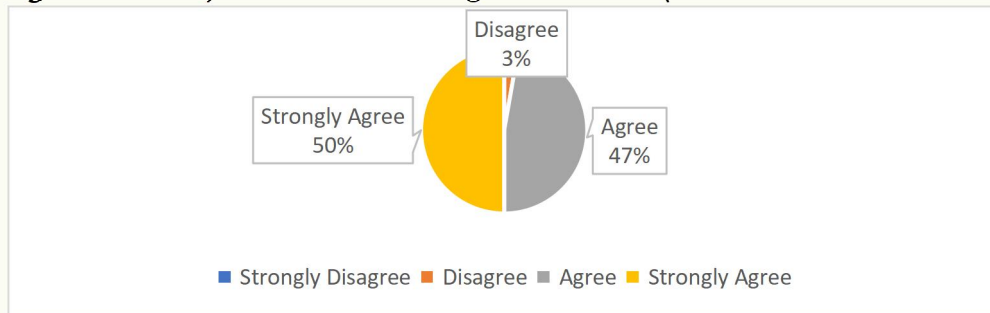
Fig. 15. Understand that the interrelationship between language and the environment



Ecolinguistic studies have parameters, namely interrelationships (language and environment interrelation), environment (physical and socio-cultural environment) and diversity (language and environmental diversity). The concept of language interrelation refers to the naming of herbal medicinal plants in an environment that supports the Sanata Dharma University Yogyakarta green ecology program. The results of the diagram above show that as many as 33% of respondents stated that they strongly agreed and as many as 64% of respondents agreed with this statement. However, as many as 3% of respondents said they did not agree with this statement. Thus, it can be concluded that respondents understand the interrelationship of language with the environment referring to the naming of herbal medicinal plants in the environment in support of the green ecology program at Sanata Dharma University, Yogyakarta.

16. The study of the iconic meaning of ornamental plants is important for students in supporting the green ecology program at Sanata Dharma University, Yogyakarta.

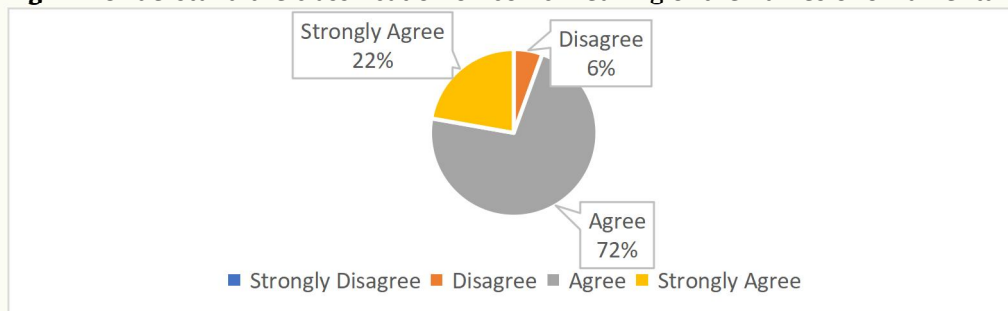
Fig. 16. The study of the iconic meaning of ornamental plants



The study of iconic meanings in ornamental plants is a study of ecolinguistics. The codes or the mention of the names of these ornamental plants are also seen from their iconicity. Charles Sanders Peirce classifies three types of signs in semiotics, namely icons, indexes and symbols. Iconic meaning can support the green ecology program as an effort to preserve the environment (Blommaert, 2007). The results of the diagram above show that as many as 50% of respondents stated that they strongly agreed and as many as 47% of respondents agreed with this statement. However, as many as 3% of respondents said they did not agree with this statement. Thus, it can be concluded that the respondents understand the study of iconic meanings on ornamental plants important for students in supporting the green ecology program at Sanata Dharma University, Yogyakarta.

17. I understand the classification of trichotomies (icons, signs, and symbols) in the iconic meaning of the names of ornamental plants in support of the green ecology program at Sanata Dharma University, Yogyakarta.

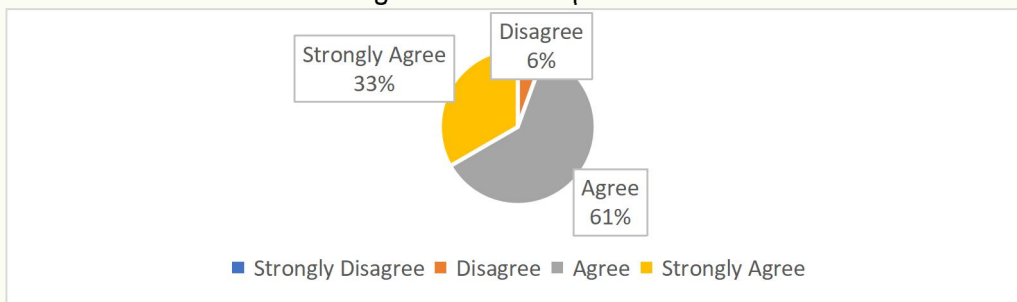
Fig. 17. Understand the classification of iconic meaning of the names of ornamental plants



The codes or the mention of the names of these ornamental plants are also seen from their iconicity. Charles Sanders Peirce classifies three types of signs in semiotics, namely icons, indexes and symbols. Iconic meaning can support the green ecology program as an effort to preserve the environment (Blommaert, 2007). The results of the diagram above show that as many as 72% of respondents stated that they strongly agreed and as many as 22% of respondents agreed with this statement. However, as many as 6% of respondents said they did not agree with this statement. Thus, it can be concluded that respondents understand classifying trichotomies (icons, signs, and symbols) in the iconic meaning of the names of ornamental plants in support of the green ecology program at Sanata Dharma University, Yogyakarta.

18. I understand that the interrelationship between language and the environment refers to the iconic meaning of ornamental plants in supporting the green ecology program at Sanata Dharma University, Yogyakarta.

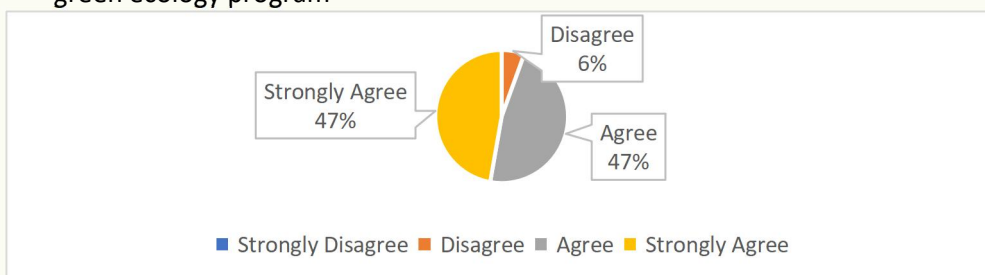
Fig. 18. Understanding the interrelationship between language and the environment refers to the iconic meaning of ornamental plants



Ecolinguistic studies have parameters, namely interrelationships (language and environment interrelation), environment (physical and socio-cultural environment) and diversity (language and environmental diversity). The concept of language interrelation refers to the iconic meaning of ornamental plants that support the green ecology program at Sanata Dharma University, Yogyakarta. The results of the diagram above show that as many as 33% of respondents stated that they strongly agreed and as many as 61% of respondents agreed with this statement. However, as many as 6% of respondents said they did not agree with this statement. Thus, it can be concluded that respondents understand the interrelationship of language with the environment referring to the iconic meaning of ornamental plants in supporting the green ecology program of Sanata Dharma University, Yogyakarta.

19. The study of the preservation of rare plants and animals is important for students in supporting the green ecology program at Sanata Dharma University, Yogyakarta.

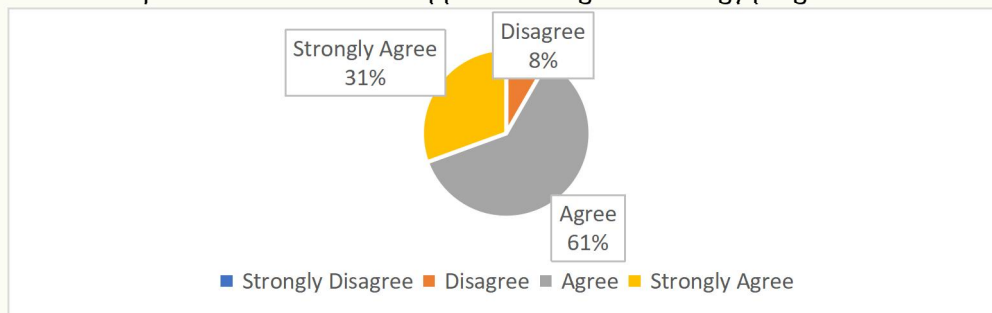
Fig. 19. Preservation of rare plants and animals is important for students in supporting the green ecology program



The study of the preservation of rare plants and animals is the study of ecolinguistics. This preservation study is in line with the goals of green ecology carried out by Sanata Dharma University, Naturalist Ecolinguistics learning plays a role in efforts to save the environment, especially efforts to preserve rare plants and animals in Indonesia (Waskul & Lust, 2004). The results of the diagram above show that as many as 47% of respondents stated that they strongly agreed and as many as 47% of respondents agreed with this statement. However, as many as 6% of respondents said they did not agree with this statement. Thus, it can be concluded that respondents understand the study of preservation of rare plants and animals is important for students in supporting the green ecology program at Sanata Dharma University, Yogyakarta.

20. I understand the relationship between language and the environment, referring to the preservation of rare plants and animals in support of the green ecology program at Sanata Dharma University, Yogyakarta.

Fig. 20. Relationship between language and the environment referring to the preservation of rare plants and animals in support of the green ecology program



Ecolinguistic studies have parameters, namely interrelationships (language and environment interrelation), environment (physical and socio-cultural environment) and diversity (language and environmental diversity) (Swidler, 1986). The concept of language interrelation refers to the preservation of rare plants and animals that support the green ecology program at Sanata Dharma University, Yogyakarta. The results of the diagram above show that 31% of respondents stated that they strongly agreed and 61% of respondents agreed with this statement. However, as many as 8% of respondents said they did not agree with this statement. Thus, it can be concluded that respondents understand the interrelationship of language with the environment referring to the preservation of rare plants and animals in support of the green ecology program at Sanata Dharma University, Yogyakarta.

4. Conclusion

The conducted research has provided a clear indication of the essential and pressing need to develop an ecolinguistic learning model that incorporates ecolinguistic dimensions. Among all the participants in this study, approximately 90% have expressed their agreement regarding the proposal to implement this learning model. Through the revitalization of the ecolinguistic learning model by integrating elements of naturalistic ecolinguistics, the learning experience becomes context-driven and departs from an excessive focus on concepts and theories. Given the demands of the current era, relying

solely on concepts and theories for learning is no longer appropriate. This approach is undoubtedly insufficient in producing graduates equipped with research skills, the ability to think critically and creatively, and the potential to excel as 21st-century human resources.

Nevertheless, it is important to acknowledge that this research is subject to certain limitations, primarily the restricted sample size of respondents, which exclusively comprises students and graduates of the university's master's program. To attain a more comprehensive understanding, future research could expand its scope to encompass a broader range of participants. Researchers who share similar concerns and interests regarding this research theme are encouraged to conduct parallel studies, thereby facilitating a more thorough, comprehensive, and academically rigorous exploration of ecological issues. Despite these considerations, this research has produced concrete and robust responses, providing a solid foundation for the development of a robust ecolinguistic learning model that effectively supports the university's green ecology program.

Declaration of Conflicting Interest

The authors state that there is no conflict of interest concerning the publication of this paper.

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