# Ecolinguistic study on environmental discourse in senior high school (MA/SMA) found in Indonesia textbook

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**Abstract:** Ecolinguistics is a study of the impact of the use of language on the survival that connects humans, other organisms, and the physical environment that is normatively oriented towards preserving relationships and sustainable life. Ecolinguistics can be used as an approach to teach Indonesian as a second language for Indonesians. With an ecolinguistic approach, students are expected to be able to learn Indonesian to represent nature or the environment they face on a daily basis. This study aims to describe the form, variation, and frequency of use of environmental discourse in Indonesian language textbooks for MA/SMA students. Furthermore, this research will specifically examine the form and function of linguistic features which include lexical and semantic aspects used in environmental discourse in Indonesian language textbooks for MA/SMA students. This study used descriptive qualitative method. The data in this study are in the form of sentences, phrases, words related to the field of ecology. The data were analyzed using ecolinguistic theoretical framework and supported by discourse theory, lexicon theory, and semantic theory. The results showed that the Indonesian Language textbooks *Cerdas Berbahasa Indonesia* for class X, XI, and XII written by Engkos Kosasih was still lacking in presenting discourses on environmental themes. The environmental lexicon inserted in the discourses of the textbooks *Cerdas Berbahasa Indonesia* for class X, XI, and XII written by Engkos Kosasih are more informative or tend to introduce general and specific terms related to the environment. The most dominant lexicon used to form the value or character of caring for the environment is the type of verb.

## INTRODUCTION

Language can inspire humans to protect the natural environment. Collaboration between ecology and linguistics can inspire people to care about nature, which is influenced by thoughts, concepts, ideas, ideologies, and perspectives that are all embodied in language. In linguistics, there is a type of study called language ecology, or ecolinguistics. Wendel (2005:51) states that the ecolinguistic approach considers the complex network of relationships that occur between the environment (biological, physical, and social), language, and language speakers. Ecolinguistics is a study that reflects the ecological nature of biological studies, in which the interaction between language and the cultural environment is seen as central (Crystal, 2008; Boada, 2017). The term is also called "language ecology," "linguistic ecology," and sometimes "green linguistics." Fill (2001) states that the concept of "language ecology" combines environment, conservation, interaction, and systems in language.

Al-Gayoni (2012) states that ecolinguistics refers to the study of critiquing forms of language that encourage behavior that is ecologically destructive or leads to ecological damage and helps seek out language that encourages relationships of concern and respect for nature or inspires people to protect the environment, but ecolinguistics can be more than that. Language ecology studies the support of various language systems that are necessary for the survival of living things as well as the factors that influence the habitation (place) of languages today. Muhlhausler (2001) states that there

are four aspects that allow the relationship between language and the environment to occur: (1) language stands and forms itself; (2) language is constructed by nature; (3) nature is constructed by language; and (4) language is constructed by nature interconnected with nature and both construct each other but rarely stand-alone (ecolinguistics).

In relation to the field of education, the ecolinguistic approach is a new method used to organize teaching and learning activities based on linguistic ecology, which has certain characteristics (Tjendani, 2017). Between ecology, linguistics, and pedagogy cannot be separated from one another in language learning. All three form an ecosystem which is referred to as an ecolinguistic approach that focuses on language learning (Lwin & Silver, 2014). Ecolinguistics can be used as an approach to teaching Indonesian as a second language for Indonesians. As previously stated, ecolinguistics links language learning with ecology or the environment, so that by using an ecolinguistic approach, students learn Indonesian to represent nature or the environment they face on a daily basis. To improve and explain the competence of language skills, students are trained by using learning materials that relate them to their daily environment naturally and culturally. When students know the relationship between classroom learning and real life, they realize the benefits or meaning of learning. In this regard, one of the goals of language teaching should be to help learners become informed about the many issues that can intrinsically affect their lives (Brown, 1991).

There are several advantages to applying ecolinguistics to classroom learning. seen from the point of view of language and ecology. From a language point of view, the application of ecolinguistics in the classroom is expected to make it easier for students to understand the concepts embodied in learning materials because it is based on their natural, social, and cultural environment (Tjendani, 2017). The students can be actively involved in learning activities and more motivated to learn the language because they can enjoy the class atmosphere and feel more connected to the material being discussed in class (Sing & Espinoza-Herold, 2014; Luardini & Simbolon, 2016). The use of ecolinguistics also involves the environmental lexicon that students use in everyday life. From an ecological point of view, humans and nature cannot be separated. The environment is a means for a person to believe in values, which then shape his attitude. Ecopedagogy can also be used as an approach to learning that makes students independent, autonomous learners who are able to develop their learning potential based on experiences brought from outside the classroom and realize that each of their actions will have an impact on themselves and their environment (Gadotti, 2011). In the classroom, students are trained to raise ecological awareness, to love and respect their environment, and to preserve the natural and cultural heritage they already have. By providing various ecolinguistic-based learning materials, students are expected to have broad insight into and consideration of each other's social realities. Thus, students can increase their responsibility and reflect on the ecological crises (such as floods, landslides, smog, and so on) that they find around them (Tjendani, 2017).

Several studies on ecolinguistics have been carried out by previous researchers, Mliless & Larouz (2018) analyzed 14 environmental texts from an ecolinguistic perspective by examining seven English language teaching (ELT) textbooks used in Moroccan secondary schools. Zahoor & Janjua, (2020) examined the ecolinguistic and ecopedagogical aspects of English textbooks for primary school level in Pakistan. Yuniawan (2018) study of ecolinguistics in conservation news texts in Indonesian mass media. Rizqan (2019) examines the types of references and categories of phrases from the ecological lexicon found in several selected poems by William Wordsworth. This study seeks to fill the gap left by several previous studies. In addition, this study attempts to reveal the ecopedagogical elements in Indonesian textbooks using ecolinguistic theory, discourse theory, and lexicon theory. Pratiwi (2021) examines the spread of elexicon and euphemism themes in reading texts on environmental themes in the 2019 *BIPA Sahabatku Indonesia* book published by Badan Pengembangan dan Pembinaan Bahasa, Kementerian Pendidikan dan Kebudayaan.

The learning aspect that is the focus of this research is Indonesian language textbooks at the MA or SMA level. The environmental literacy component in the textbook is one of the efforts that can be made to develop environmental literacy skills for students. However, the inclusion of these components should not only be considered in the presence or absence of environmental literacy

components. What is more important is how large the proportion of environmental literacy components in textbooks is, so that the textbooks are effective in developing environmental literacy skills in students. Based on a long description of environmental issues, ecological education, ecolinguistic concepts, and the application of ecolinguistics in learning, this research was conducted to combine these various things in an interdisciplinary study that is expected to make broad and concrete contributions, namely in the fields of ecology, linguistics, and learning. Specifically, this research was conducted to examine various matters related to ecolinguistics in Indonesian language textbooks for high school level (MA/SMA). Several things were examined, namely: firstly, the frequency of use of environmental-themed discourse in Indonesian language textbooks for students (MA/SMA); second, examining the environmental content used in the discourse on Indonesian language textbooks for high school students (MA/SMA); and third, examining the form and function of lexical features used in environmental discourse in Indonesian language textbooks for high school students (MA/SMA).

**METHODS**

This research was conducted using the descriptive-qualitative method. A qualitative approach aims to understand social phenomena, including the linguistic phenomena being studied (Mahsun, 2007). Djajasudarma (2006) stated that the qualitative approach is a procedure that produces descriptive data in the form of written or spoken data in the language community because the qualitative approach prioritizes data analysis techniques with the power of in-depth description. The population in this study was all Indonesian MA/SMA class X-XII textbooks used in Tangerang Selatan, Banten, Indonesia. Of all the Indonesian language textbooks for MA/SMA grades X–XII, one was the most widely used in SMA/MA Tangsel, namely the *Cerdas Berbahasa Indonesia* book for grades X, XI, and XII written by Engkos Kosasih and published by Erlangga.

The sample for this research was taken using the purposive sampling technique (Campbell, 2020; Sugiyono, 2018). The data in this study are in the form of sentences, phrases, and words related to the field of ecology. The source of the data in this study is the discourse in three Indonesian Language textbooks for classes X, XI, and XII written by Engkos Kosasih from Erlangga Publisher. Some of the data collection techniques used in this study include documentation techniques, listening techniques, and note-taking techniques. The documentation technique applied in this research is to collect and examine the contents of the textbook *Cerdas Berbahasa Indonesia*, classes X, XI, and XII, written by Engkos Kosasih and published by Erlangga. The listening method applied in this study is listening to various texts containing ecological content contained in the textbooks *Cerdas Berbahasa Indonesia*, classes X, XI, and XII, written by Engkos Kosasih and published by Erlangga. The note-taking technique in this study was applied to record the form and function of lingual features in environmental discourse in the class X, XI, and XII *Cerdas Berbahasa Indonesia* textbooks by Engkos Kosasih, published by Erlangga. The three textbooks that have been selected are compared to the content of their environmental discourse. Then, the data were analyzed using an ecolinguistic theoretical framework supported by discourse theory, lexicon theory, and semantic theory.

**RESULT AND DISCUSSION**
*Frequency Analysis of Environmental Themes and Discourse Forms*

**Table 1**
**Frequency of Use of Environmental Themes**

| Book Grade | Number of Themes | Number of Environmental Themes |
|---|---|---|
| X | 56 | 2 |
| XI | 29 | 7 |
| XII | 42 | 0 |

Based on the results of the analysis, the *Cerdas Berbahasa Indonesia* book for class X is written by Engkos Kosasih (2016) was built on 36 basic competencies. Of the 36 basic competencies, there

are 56 discourses as learning resources. The results of the analysis show that the forms of discourse include exposition (17). description 1, argumentation 1, narrative 18, and poetry 19. Thus, it can be stated that most of the learning resources in the book are presented in the form of explanations, stories, and poetry. The table shows that of the 56 themes presented, there are only two related to the environment (2). Based on the table of analysis and explanation, it can be stated that the *Cerdas Berbahasa Indonesia* book for class X, written by Engkos Kosasih and published by Erlangga Publisher, is still very lacking in presenting environmental-themed discourse, which is only 1 theme out of a total of 56 discourse themes, or about 1.8% of the total discourse theme.

*Cerdas Berbahasa Indonesia* Book for Class XI by Engkos Kosasih (2017) contains 26 basic competencies. Based on 26 basic competencies, there are 29 discourses as learning resources. The results of the analysis show that the form of discourse includes 15 expositions, 3 persuasions, 4 descriptions, 5 narrations, and 1 poem. Thus, it can be stated that most of the learning resources in the book are presented in the form of explanations. The table above shows that the book presents 29 themes. Of the 29 themes discussed, seven are related to the environment. Based on the analysis table above, it can be stated that *Cerdas Berbahasa Indonesia* book for class XI (2), written by Engkos Kosasih and published by Erlangga Publisher, is still lacking in presenting discourses on environmental themes, namely only 5 environmental themes out of a total of 29 discourse themes, or around 17.2% of the total discourse themes.

*Cerdas Berbahasa Indonesia* Book for Class XII by Engkos Kosasih (2018) is built on 26 basic competencies. Of the 28 basic competencies, there are 42 discourses as learning resources. The results of the analysis show that the forms of discourse include exposition 4, persuasion 6, description 6, narration 14, and poetry 12. Thus, it can be stated that most of the learning resources in the book are presented in the form of narration and poetry. The table above shows that in the book, there are 42 discourse themes. Based on the results of the calculation, it appears that of the 42 themes discussed, there are no themes related to the environment. The most widely presented themes are socio-cultural themes, which comprise 14 pieces. Thus, it can be stated that the *Cerdas Berbahasa Indonesia* book for class XII, written by Engkos Kosasih and published by Erlangga Publisher, does not present a discourse on environmental themes at all.

### *Analysis of Environmental Information Content*

**Table 2**
**Frequency of Environmental Content in Discourse**

| Book Grade | Number of Discourse | Environmental Information Content | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Abiotic | | | | | | Biotic | |
| | | Soil | Water | Air | Mineral | Energy | Climate | Flora | Fauna |
| X | 19 | 3 | 7 | 4 | 0 | 0 | 2 | 10 | 10 |
| XI | 10 | 3 | 5 | 1 | 0 | 1 | 0 | 5 | 5 |
| XII | 8 | 5 | 5 | 1 | 0 | 2 | 2 | 5 | 3 |

Based on the table above, it appears that there are 56 discourses in the book Cerdas Berbahasa. Book Grade Number of Discourse Environmental Information Content Abiotic Biotic Soil Water Air Mineral Energy Climate Flora Fauna Indonesia Class X is written by Engkos Kosasih and published by Erlangga Publisher, and there are 19 discourses containing information about the environment. The environmental information content in the book makes up 33.9% of the total number of discourses displayed. The most conveyed environmental information content is the biotic environment, which is 20 data points, or 55.5% of the total 36 environmental content points. The biotic environmental information content is conveyed in a balanced manner, namely 10 data points on flora aspects and 10 data points on fauna aspects. The most conveyed abiotic environmental information content is the water aspect, which is 7 data points. Aspects of the abiotic environment that have not been conveyed through discourse are mineral and energy aspects.

In the book *Cerdas Berbahasa Indonesia* Class XI, written by Engkos Kosasih, there are 29 discourses, and there are 10 discourses containing information about the environment. From these data, it can be said that the discourse with environmental information content in the book is 34.8% of the total number of discourses displayed. The environmental information content is delivered in a balanced manner, namely the biotic environment, which is 10 data points or 50%, and the abiotic environment, which is 10 data points or 50% of the total environmental content. The information content of the biotic environment is conveyed in a balanced manner, namely the flora aspect as much as 5 data points and the fauna aspect as much as 5 data points. The most conveyed abiotic environmental information content is the water aspect, which is 5 data points. Aspects of abiotic environmental information that are still very little known or have not even been conveyed through discourse are aspects of air, minerals, energy, and climate or weather.

In the book *Cerdas Berbahasa Indonesia* Class XII, written by Engkos Kosasih, there are 42 discourses, and there are 8 discourses containing information about the environment. From these data, it can be said that the discourse with environmental information content in the book is 19% of the total number of discourses displayed. The most conveyed environmental information content is the abiotic environment, which is 15 data points, or 65.2% of the total 23 environmental information points. The most conveyed biotic environmental information content is the flora aspect with 5 data points and the fauna aspect with 3 data points. The most conveyed abiotic environmental information content is soil and water aspects, which are 5 data points each. Aspects of abiotic environmental information that are still very little known or have not even been conveyed through discourse are aspects of air, minerals, energy, and climate or weather.

**Analysis of Environmental Lexicon Usage**

**Table 3**
**Environmental Lexicon Type**

| Book Grade | Number of Discourse | Environmental Lexicon Type | | | | | | | | | Category Lexicon | | |
| | | Abiotic | | | | | | | Biotic | | | | |
| | | Soil | Water | Air | Space | Mineral | Energy | Climate | Flora | Fauna | N | V | Adj |
| X | 19 | 31 | 11 | 4 | 4 | 0 | 5 | 8 | 36 | 47 | 137 | 7 | 2 |
| XI | 10 | 21 | 20 | 5 | 3 | 3 | 7 | 3 | 24 | 44 | 128 | 2 | 0 |
| XII | 8 | 6 | 11 | 2 | 1 | 0 | 3 | 8 | 14 | 23 | 65 | 3 | 0 |

Based on the results of the environmental lexicon analysis, in the book *Cerdas Berbahasa Indonesia* class X by Engkos Kosasih, there are 19 discourses containing environmental information content, and there are 146 lexicons related to the environment, both abiotic and biotic. Based on the table above, the most dominant environmental lexicon that appears is the biotic environmental lexicon, which accounts for 83 data points or 56.8% of the total environmental lexicon. The lexicon that is still not raised includes the lexicon of the air, space, minerals, energy, and climate or weather environment. Based on the word class category, environmental information is mostly conveyed in the form of nouns, as many as 137 data points, or 93.8%. This shows that the environmental lexicon inserted in the discourses in the book *Cerdas Berbahasa Indonesia* Class X, written by Engkos Kosasih, is more informative or tends to introduce general and specific terms related to the environment, both abiotic and biotic.

In the book *Cerdas Berbahasa Indonesia* Class XI, written by Engkos Kosasih, there are 10 discourses containing environmental information content, and there are 130 lexicons related to the environment, both abiotic and biotic. The most dominant environmental lexicon that appears is the biotic environmental lexicon, which accounts for 68 data points or 52.3% of the total environmental lexicon. The environmental lexicon that is still underappreciated includes the environmental lexicon of air, space, minerals, energy, and climate or weather. Based on word class category, environmental information is mostly presented in noun form, which is 128 data points, or 93.8%. This shows that the environmental lexicon inserted in the discourses in the book *Cerdas Berbahasa Indonesia* Class XI,

written by Engkos Kosasih, is more informative or tends to introduce general and specific terms related to the environment, both abiotic and biotic.

In the book *Cerdas Berbahasa Indonesia* Class XII, written by Engkos Kosasih, there are 8 discourses containing environmental information content, and there are 68 lexicons related to the environment, both abiotic and biotic. The environmental lexicon that most dominantly appears is the biotic environmental lexicon, which is 37 data points or 54.4% of the total environmental lexicon. The environmental lexicon that is still underappreciated includes the environmental lexicon of air, space, minerals, and energy. Based on the category of word class, more environmental information is conveyed in the form of nouns, which is as much as 65 data points, or 95.6%. This shows that the environmental lexicon inserted in the discourses of the class XII *Cerdas Berbahasa Indonesia* book written by Engkos Kosasih is more informative or tends to introduce general and specific terms related to the environment, both abiotic and biotic.

**Table 4**
**Use of Environmentally Concerned Character-Building Lexicon**

| Book Grade | Character Building Lexicon Noun | Meaning | Character Building Lexicon Verb | Meaning |
|---|---|---|---|---|
| X | *kebergantungan* | dependency | *menunjang* <br> *menguntungkan* <br> *melindungi* <br> *bergantung* <br> *membutuhkan* <br> *memiliki* <br> *mencintai* <br> *memelihara* | support <br> beneficial <br> protect <br> depending <br> need <br> have <br> loving <br> take care |
| XI | *persiapan* <br> *kewaspadaan* <br> *kesadaran* <br> *perkembangan* <br> *pelestarian* <br> *pelajaran* | preparation <br> vigilance <br> awareness <br> development <br> preservation <br> lessons | *meminimalkan* <br> *menerapkan* <br> *menghasilkan* <br> *mencegah* <br> *jaga* <br> *lestarikan* <br> *diwariskan* <br> *melarang* <br> *lapor* <br> *dibutuhkan* <br> *menggantungkan* <br> *mengelola* <br> *memanfaatkan* <br> *melestarikan* | minimize <br> apply <br> produce <br> prevent <br> preserve <br> save <br> inherited <br> prohibit <br> report <br> need <br> depend <br> manage <br> make use <br> save |
| XII | - | | - | |

Based on the results of the analysis of the lexicon forming the character of caring for the environment contained in the discourses in the book *Cerdas Berbahasa Indonesia* class X by Engkos Kosasih, it can be stated that of a total of 19 discourses containing environmental information content, only 3 discourses contain the lexicon forming the character of caring for the environment. Of the three discourses, there are nine lexicons related to the formation of environmental care characters. Based on word category, the most dominant lexicon used to form the values or character of caring for the environment is the type of verb, which is 8 or 88, or 8% of the total lexicon. The value and character-forming lexicon contained in the three discourses tend to lead to concern for the biotic environment. Some examples of verbs used to form the character of caring for the environment are *melindungi, mencintai, memelihara*, etc. Some of these verbs are expected to influence readers (students) to be able to implement the meaning of these words in relation to the preservation or maintenance of the surrounding environment, both abiotic and biotic.

In the book *Cerdas Berbahasa Indonesia* Class XI, written by Engkos Kosasih, there are 10 discourses containing environmental information content, and there are 6 discourses containing lexicon forming the character of caring for the environment. Of the six discourses, there are 22 lexicons related to the formation of values or characters caring for the environment. Based on the word category, the most dominant lexicon used to form the character of caring for the environment is the type of verb, which is 15 or 68, 2% of the total lexicon. The character-forming lexicon contained in the six discourses tends to lead to concern for the abiotic environment, namely 14 data points, or 63.6%. Some examples of verbs used to form values or attitudes to care for the environment are *jaga, lestarikan, mengelola,* etc. Some of these verbs are expected to influence readers (students) to be able to implement the meaning of these words in relation to the preservation or maintenance of the surrounding environment, both abiotic and biotic.

In the book *Cerdas Berbahasa Indonesia*, class XII, written by Engkos Kosasih, there are eight discourses containing environmental information content, but there is no lexicon to shape the character of caring for the environment. The eight discourses are not discourses that specifically discuss environmental themes or topics, so there are no lexicons that have the potential to shape the character of caring for the environment. Therefore, this phenomenon becomes an interesting finding from research on discourse analysis using an ecolinguistic perspective in Indonesian language textbooks at the high school (SMA/MA) level.

**DISCUSSION**

This study aims to investigate ecolinguistic representations in Indonesian high school (SMA/MA) textbooks in South Tangerang, Banten, Indonesia. Therefore, the content analysis presented in the study leads to an ecolinguistic perspective. Stibbe (2015) describes the relationship between ecology and linguistics to describe the study of the interaction and diversity of languages, the study of texts such as outdoor signs, the analysis of the text that occurs about the environment, the study of how words in a language relate to objects in the local environment, the study of the language mix around pupils in multicultural schools, the study of dialects in specific geographic locations, and many other diverse areas. The results of the analysis of the theme and content of environmental information show that the book *Cerdas Berbahasa Indonesia* class X by Engkos Kosasih, published by Erlangga Publisher, only presents one (1) environmental-themed discourse out of a total of 56 discourse themes, or about 1.8% of the total discourse themes. In the book, there are 56 discourses, and there are 19 discourses containing information about the environment. The environmental information content in the book makes up 33.9% of the total number of discourses displayed. The most widely conveyed environmental information content is the biotic environment, which is 20 data points, or 55.5% of the total 36 environmental data points. The abiotic environmental aspects that have not been conveyed through discourse are the mineral and energy aspects. The *Cerdas Berbahasa Indonesia* book for Class XI (2) by Engkos Kosasih only presents five (5) environmental themes out of a total of 29 discourse themes, or about 17.2% of the total discourse themes. In the book, there are 29 discourses, and there are 10 discourses containing information content about the environment (34.8% of the total number of discourses displayed). The environmental information content is delivered in a balanced manner, namely the biotic environment, which is 10 data points or 50%, and the abiotic environment, which is 10 data points or 50% of the total environmental content. Aspects of abiotic environmental information that are still very little known or have not even been conveyed through discourse are aspects of air, minerals, energy, and climate or weather. This happens because the book tends to focus on discourses that contain biotic environmental information content on flora and fauna aspects as well as abiotic environmental information content on soil and air aspects.

The *Cerdas Berbahasa Indonesia* book for class XII does not contain themes related to the environment. The most widely presented themes are socio-cultural themes, which comprise 14 pieces. In the book, there are 42 discourses, and eight of them contain information about the environment. From these data, it can be said that the discourse with environmental information content in the book is 19% of the total number of discourses displayed. The most widely conveyed environmental

information content is the abiotic environment, which comprises 15 data points, or 65.2% of the total 23 environmental content points. Aspects of abiotic environmental information that are still very little known or have not even been conveyed through discourse are aspects of air, minerals, energy, and climate or weather.

Thus, it can be stated that the book *Cerdas Berbahasa Indonesia* Class X, XI, and XII, written by Engkos Kosasih and published by the publisher Erlangga, still lacks in presenting discourses on environmental themes. This means that the textbook has not provided opportunities for students to know and understand more about various environmental lexicons and various environmental problems. In addition, with a small number of environmental discourses, the opportunity for students to have awareness and a critical attitude towards the environment is also getting smaller. The results of this study are in line with the results of Xiong's (2014) study, which identified 28 best-selling ELT textbooks in China. The results of the analysis show that the topic of nature accounts for only 4% of the 188 sample units. The results of this study are also in line with the results of study, which identified 28 best-selling ELT textbooks in China. The results of the analysis show that the topic of nature accounts for only 4% of the 188 sample units. The results of this study are also in line with the results of Zahoor & Janjua (2020) research that investigated environmental texts in English textbooks used in Pakistani schools at the elementary level. They found that the selected textbooks did not have an ecopedagogical representation. In addition, the results of this study are also in line with the findings of Zerrouqi et al. (2016) who analyzed textbooks in Moroccan secondary schools and argued that textbooks did not include ecolinguistic topics to provide students with an understanding of the dangers of pollution and to increase students' awareness of natural and environmental issues. In addition, the results of research regarding the lack of environmental information content in the books *Cerdas Berbahasa Indonesia*, classes X, XI, and XII, written by Engkos Kosasih, are in line with the research results of Guillemette et al. (2008) who revealed that textbooks contain little information about the wider environment, rarely offer students opportunities to think about environmental choices, and provide little incentive for critical environmental thinking.

Based on the results of the analysis of the lexicon forming the character of caring for the environment, it can be stated that in the book *Cerdas Berbahasa Indonesia* class X by Engkos Kosasih, there are only 3 discourses that contain the lexicon forming the character of caring for the environment. Based on word categories, the most dominant lexicon used to form values or characters that care about the environment is the type of verb. Some examples of verbs used to form the character of caring for the environment include protecting, loving, nurturing, etc. In the book *Cerdas Berbahasa Indonesia* Class XI, written by Engkos Kosasih, there are six discourses that contain lexicon forming the character of caring for the environment. Of the six discourses, there are 22 lexicons related to the formation of values or characters caring for the environment. Based on word categories, the most dominant lexicon used to form the character of caring for the environment is the type of verb. Some examples of verbs used to form values or attitudes to care for the environment are guard, preserve, manage, etc. In the book *Cerdas Berbahasa Indonesia*, class XII, written by Engkos Kosasih, there are eight discourses containing environmental information content, but there is no lexicon to shape the character of caring for the environment. Therefore, this phenomenon becomes an interesting finding from research on discourse analysis using an ecolinguistic perspective in Indonesian language textbooks at the high school (SMA/MA) level. The results of the analysis of the ecolexicon forming the character of caring for the environment are in line with those stated by Yuniawan et al. (2019) The function of the ecolexicon is to express a movement. The movement referred to in this case is a movement, effort, or activity in a particular field. The field in question is environmental conservation.

Ecolinguistics can be practiced as an Indonesian language teaching approach. By practicing ecolinguistic concepts, students learn Indonesian and ecology at the same time. Thus, students get two perspectives on learning the Indonesian language and ecology. Students can learn Indonesian and also gain insight into the inseparable relationship between humans and nature. This is in line with the results of research by Zahoor & Janjua (2020) which states that language teaching (English) should

not only consider the development of language skills but also increase students' awareness of important issues in the world today, such as the environmental crisis, and reflect this concern into textbooks. Nkwetisama (2011) argues that teaching a second language is not only limited to increasing students' language proficiency but also needs to be aimed at activating students to develop critical thinking strategies that can be useful for teaching environmental sustainability. Young (2016) argues that language lessons should not only strengthen students' language skills but also be designed to enhance students' linguistic competence while connecting with the natural environment and its members in the classroom or in the community.

Faramarzi & Janfeshan (2021) also stated that the use of ecolinguistics in English classes leads teachers to ask students to pay more attention to ecological knowledge. Therefore, students are expected to appreciate the environment by reading topics that are closely related to several issues related to ecology and the environment, such as endangered animals, climate change, pollution, environmental degradation, and resource depletion. Curriculum planning should use ecolinguistic representations in textbooks to support learning. With the emergence of environmental education and its focus on ecological issues, textbook authors should compile books with the aim of improving the views of young and adult generations towards environmental improvement. Brand & Wissen (2018) assert that raising awareness in bio-ecology will change students' attitudes towards this extraordinary way of life.

## CONCLUSION

Ecolinguistics is an important approach that must be applied in compiling textbooks at various levels of school, especially Indonesian language books in high school. It includes various environmental and natural resource issues that need to be presented to students in order to increase their awareness of nature and ecology. The findings of this study reveal that the book *Cerdas Berbahasa Indonesia* for classes X, XI, and XII, written by Engkos Kosasih and published by Erlangga Publisher, is still lacking in presenting environmental-themed discourse. The environmental lexicon inserted in the discourses of the *Cerdas Berbahasa Indonesia* book classes X, XI, and XII written by Engkos Kosasih is more informative or tends to introduce general and specific terms related to the environment, both abiotic and biotic. The *Cerdas Berbahasa Indonesia* book for classes X and XI contains several lexicons to form the character of caring for the environment; the most dominant lexicon used is the type of verb. Some of these verbs are expected to influence readers (students) to be able to implement the meaning of these words in relation to the preservation or maintenance of the surrounding environment, both abiotic and biotic. However, there is no lexicon to form values and character to care for the environment in the XII *Cerdas Berbahasa Indonesia* book. This happens because there is no discourse that specifically discusses environmental themes or topics, so there are no lexicons that have the potential to form the values and character of caring for the environment. Therefore, this phenomenon becomes an interesting finding from research on discourse analysis using an ecolinguistic perspective in Indonesian language textbooks at the high school (SMA/MA) level.

These findings can be a suggestion for curriculum makers and writers of Indonesian language textbooks in general, as well as specifically for the high school level, to start paying attention to the importance of environmental-based discourse content. Environmental education is a big capital for a nation, especially the Indonesian nation, to be able to instill environmental care characters in the younger generation so that they can avoid various threats of natural environmental crises, such as extinction, hunger, disasters, energy crises, and various other bad impacts that arise due to environmental damage. This is in accordance with Pala's (2011) opinion that good character cannot be formed automatically but is developed from time to time through a continuous process of teaching, example, learning, and practice. Through this research, researchers suggest curriculum makers start mapping out competencies related to environmental conservation that must be achieved at every level of education, from basic education to higher education. In addition, Schuwirth et al. (2019) also states that schools must be fully responsible for managing the learning process based on environmental awareness. With the mapping of environmental care competencies at every level of education, each

author of the book will adjust the discourse needed to achieve competencies related to environmental conservation. Knowledge, attitudes, and actions towards the environment are connected with environmental awareness, which has an effect on students' attitudes (Dimopoulos et al, 2009). Students' critical thinking skills are also related to environmental awareness (Wals, 2011). Thus, students who are aware of environmental issues can develop their critical thinking and build exemplary attitudes.

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