

## THE NEEDS ANALYSIS OF MULTIMODAL ECOLINGUISTICS-BASED ENGLISH LANGUAGE LEARNING AT UNIVERSITAS TANGERANG RAYA

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### Abstract

Language teaching in higher education is increasingly required to respond to global challenges, including environmental sustainability and the growing role of multimodality in literacy practices. This mini research aims to analyse students' learning needs and lecturers' perspectives on language instruction that integrates multimodal approaches and ecolinguistics perspectives. The study employed a qualitative descriptive approach using a needs analysis design. Data were collected through student questionnaires, in depth interviews with reading course lectures, and an analysis of teaching materials entitled *Ecological Awareness in Modern Society*. The findings indicate that students require language learning materials that address environmental issues and are presented through multiple modes, such as texts, visuals, and digital media, to enhance comprehension and engagement. Lecturers perceive that multimodal ecolinguistics based instruction can foster students' critical literacy, ecological awareness, and language skills, although challenges remain in terms of material availability and instructional readiness. This study suggests the development of multimodal ecolinguistics based language learning materials as an innovative strategy to support contextual and sustainable language education in higher education.

**Keywords:** ecolinguistics, multimodality, needs analysis

### Abstrak

Pengajaran bahasa di pendidikan tinggi semakin dituntut untuk merespons tantangan global, termasuk keberlanjutan lingkungan dan meningkatnya peran multimodalitas dalam praktik literasi. Mini riset ini bertujuan untuk menganalisis kebutuhan belajar mahasiswa serta pandangan dosen terhadap pembelajaran bahasa yang mengintegrasikan pendekatan multimodal dan perspektif ekolinguistik. Penelitian ini menggunakan pendekatan deskriptif kualitatif dengan desain analisis kebutuhan. Data dikumpulkan melalui kuesioner mahasiswa, wawancara mendalam dengan dosen pengampu mata kuliah reading, serta analisis bahan ajar berjudul *Ecological Awareness in Modern Society*. Hasil penelitian menunjukkan bahwa mahasiswa membutuhkan materi pembelajaran bahasa yang mengangkat isu-isu lingkungan dan disajikan melalui berbagai mode, seperti teks, visual, dan media digital, untuk meningkatkan pemahaman dan keterlibatan belajar. Dosen memandang bahwa pembelajaran bahasa berbasis ekolinguistik multimodal dapat mengembangkan literasi kritis, kesadaran ekologis, dan keterampilan berbahasa mahasiswa, meskipun masih terdapat tantangan terkait ketersediaan materi dan kesiapan pengajaran. Studi ini merekomendasikan pengembangan materi pembelajaran bahasa berbasis ekolinguistik multimodal sebagai strategi inovatif untuk mendukung pembelajaran bahasa yang kontekstual dan berkelanjutan di pendidikan tinggi.

**Kata Kunci:** ekolinguistik, multimodalitas, analisis kebutuhan

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## INTRODUCTION

The advancement of communication technologies and pedagogical practices in higher education has shifted the focus of language learning from purely verbal texts to learning that integrates diverse semiotic modes, such as images, sound, video, design, and digital interaction. A multimodal approach posits that meaning is constructed through the combination of these modes. Consequently, contemporary language competence requires multimodal literacy rather than solely traditional language skills. Empirical studies and systematic reviews over the past decade have demonstrated that multimodal strategies can enhance learner engagement, conceptual understanding, and retention in language learning, particularly when instructional materials are designed in accordance with multimedia cognitive principles (e.g., cognitive load management, contiguity, and signaling). These principles are articulated in the Cognitive Theory of Multimedia Learning and serve as a framework for the design of multimodal instructional materials (Mayer, 2002).

At the same time, the emergence of a global environmental crisis and the growing awareness of sustainability have increased the demand for higher education not only to transfer technical skills but also to foster pro-environmental attitudes and values. Ecolinguistics, as a discipline, examines how language represents the relationship between humans and nature, how discourse shapes attitudes toward the environment, and how linguistic practices can be employed to enhance ecological awareness. In recent years, this field has experienced rapid growth, both as a theoretical domain and in its pedagogical applications, with a focus on environmental discourse analysis, the development of ecologically sensitive teaching materials, and the concept of ecopedagogy. Recent studies highlight the expanding scope of ecolinguistics and its relevance to sustainability-oriented higher education (Zhang, 2021).

In the Indonesian context, several early studies have applied an ecolinguistic framework to the analysis of textbooks, instructional materials, and educational media discourse. At the same time, research on multimodality in language teaching has also increased, highlighting its pedagogical benefits and the need to develop digital and multimodal literacy at the university level. A multimodality-based needs analysis conducted at Universitas Tangerang Raya revealed a gap between the available materials—often grounded in traditional text-based formats—and students' expectations, as they are accustomed to consuming multimodal information. These local findings indicate a tangible discrepancy and are consistent with the study by Ekowati & Andika (2024). They argue that instructional materials which fully exploit multimodality have the potential to address sustainability issues in a critical and contextualized manner.

From theoretical and pedagogical perspectives, the integration of multimodality and ecolinguistics can be justified in two ways. From a cognitive standpoint, well-designed multimedia facilitates the construction of richer mental representations by integrating sound, images, and text, which in turn promotes more authentic linguistic comprehension and production. From a critical sociocultural perspective, ecolinguistic analysis encourages students to understand how language shapes the relationship between humans and nature, and how

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discourse can reproduce or challenge environmentally harmful practices. This combination can enhance linguistic competence while fostering more reflective and environmentally conscious learning. Kress and van Leeuwen's multimodal theory, Mayer's multimedia learning theory, and Hutchinson and Waters' needs analysis approach provide a conceptual framework for designing a systematic and applicable needs assessment (Kress & van Leeuwen, 2001).

Despite strong theoretical arguments and empirical evidence indicating substantial potential for implementation at Universitas Tangerang Raya, several practical constraints remain. These include limited resources and insufficient professional development for lecturers to design ecologically relevant multimodal materials, a curriculum that continues to prioritize traditional language learning outcomes, and the lack of local needs studies that systematically map learners' preferences, gaps, skills, and institutional contexts for the adoption of new instructional models. These conditions underscore the necessity of conducting research through a multimodal ecolinguistic needs analysis that addresses the specific requirements of the higher education context, including the types of materials desired by students, media and platforms perceived as effective, faculty capacities, and contextual barriers as prerequisites for designing relevant instructional materials and learning interventions. Although several recent local studies have begun to address these aspects, their scope, methodologies, and generalizability remain limited, thus calling for more systematic investigation (Rahmanu & Molnár 2024).

Therefore, this mini-research is grounded in two interrelated practical and scholarly needs. First, there is a practical demand for language learning materials that are aligned with contemporary communicative practices (multimodality) and capable of fostering ecological awareness among students of the English Education program at Universitas Tangerang Raya. Second, there is a scholarly need to address the lack of empirical data regarding learners' preferences, competencies, and constraints within the context of Universitas Tangerang Raya. Such data will serve as a foundation for curriculum design, the development of language learning programs, and instructional materials oriented toward multiliteracies and sustainability. This study considers needs analysis as a strategic initial step in formulating an ecolinguistics-based multimodal language learning model, enabling the design of subsequent interventions that are both evidence-informed and context-sensitive. This approach is consistent with the principles of English for Specific Purposes (ESP), which emphasize that instructional design should be grounded in learners' actual needs (Lin, Wang & Zhang, 2014).

The proposed study aims to address research questions such as: what types of materials and modalities are required by students of the English Education program at Universitas Tangerang Raya, how lecturers perceive the integration of ecological perspectives into language teaching, and which institutional factors hinder or facilitate its implementation. The findings of this study are expected to offer both theoretical contributions and practical insights. The problem background positions needs analysis as a crucial step to ensure the relevance, acceptability, and sustainability of language learning interventions in the era of multimodality and ecological crisis.

Based on the problem background, the research problems are formulated as follows: (1) what are the students' needs in language learning that integrates a multimodal approach and an ecolinguistic perspective? (2) what types of materials, media, and learning resources are required to support ecolinguistics-based multimodal language learning in higher education? and

(3) how do lecturers perceive the implementation of ecolinguistics-based multimodal language learning, including its facilitating and constraining factors?

Accordingly, the objectives of this study are: (1) to analyse the needs of students and lecturers with regard to ecolinguistics-based multimodal language learning, (2) to identify the skills, types of materials, and media required for the implementation of this approach, and (3) to provide preliminary recommendations for the development of a multimodal and ecologically oriented language learning model.

This study is delimited to three aspects: (1) English language courses in the English Education study program at Universitas Tangerang Raya, (2) a needs analysis encompassing learning needs, materials, media, and environmental context, and (3) a focus on the integration of multimodality and ecolinguistic values in language learning, without addressing the full implementation of the instructional model. Furthermore, the significance of this study can be outlined as follows. First, from a theoretical perspective, it contributes to the enrichment of applied linguistics by integrating multimodality and ecolinguistics. Second, from a practical perspective, it provides an empirical account of students' actual needs, serving as a basis for instructional material development. Third, it supports higher education institutions in designing sustainable learning practices through a language-based perspective. Fourth, it promotes ecological awareness through language learning activities.

## **METHOD**

This study employs a qualitative descriptive approach, as it aims to describe language learning needs as they naturally occur, based on the experiences of students and lecturers. This approach is selected to obtain a realistic and in-depth understanding without administering treatments or conducting experimental procedures.

The research design adopted is a needs analysis, which seeks to identify needs, gaps, and expectations related to ecolinguistics-based multimodal language learning.

Three data collection methods are employed in this study: (1) a survey using questionnaires to obtain a general overview of students' needs related to ecolinguistics-based multimodal learning, (2) in-depth interviews conducted to explore specific needs, experiences, and more detailed perspectives of the respondents, and (3) document analysis of existing instructional materials to assess the extent to which multimodal elements and ecolinguistic perspectives have been integrated. The combination of these three methods provides comprehensive data on language learning needs at Universitas Tangerang Raya.

The data sources are divided into two categories: (1) primary sources, consisting of students and lecturers who teach or attend English language courses, as they are directly involved in the learning process and can provide information on actual needs; and (2) secondary sources, such as digital materials used in the instructional process.

The research instruments consist of questionnaires and interview guidelines. The questionnaire is used to collect structured perceptual data, in line with the function of survey instruments as described by Creswell (2014). The interview guideline is employed to systematically elicit in-depth information. In addition, a document analysis checklist is developed based on multimodal principles (Kress & van Leeuwen, 2006) and ecolinguistic perspectives to comprehensively evaluate texts and instructional materials.

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Data validity is ensured through source triangulation, method triangulation, and member checking. Triangulation is employed to compare the consistency of findings across different data sources and collection techniques, as recommended by Denzin (1978) to enhance the trustworthiness of qualitative research. In addition, member checking is conducted by asking participants to review preliminary findings to ensure that the researcher's interpretations remain accurate and aligned with participants' experiences (Lincoln & Guba, 1985). Research reliability is maintained through consistent data collection procedures applied to all participants and through systematic data coding. This consistency is in line with Creswell's (2014) view that reliability in qualitative research is achieved when procedures can be replicated consistently. Furthermore, when more than one researcher is involved, coders reach agreement to ensure consistency in coding results, as suggested by Miles, Huberman, and Saldaña (2014) to enhance consistency in data interpretation.

Data collection is carried out through the development of research instruments (questionnaires, interview guidelines, and document analysis sheets), the distribution of questionnaires to students, interviews with lecturers and selected students, and the collection of instructional materials used in the classroom. All data are carefully recorded and organized. These procedures follow Creswell's (2014) qualitative data collection framework, which emphasizes the importance of employing multiple techniques to obtain comprehensive and reliable data. The data analysis procedures and techniques employ qualitative analysis through the following stages:

1. Data reduction, which involves grouping and condensing responses from questionnaires and interviews.
2. Classification based on categories, including material needs, media needs, ecological aspects, and multimodality.
3. Thematic analysis to identify recurring patterns and core needs.
4. Interpretation of findings and formulation of recommendations.

These steps follow the analytical model proposed by Miles, Huberman, and Saldaña (2014), which emphasizes ongoing data reduction, data display, and conclusion drawing.

## **RESULTS AND DISCUSSION**

This section describes ecolinguistic perspectives, multimodality, and needs analysis, thereby providing a comprehensive overview of the needs and perceptions of students and lecturers regarding ecolinguistics-based multimodal language learning in higher education.

### **A. Analysis of the Material Ecological Awareness in Modern Society**

This material is an academic text that focuses on issues related to the relationship between humans and the environment, ecological change, ecological literacy, and the role of higher education in fostering sustainability awareness. This analysis evaluates the material from ecolinguistic, multimodal, and needs analysis perspectives in order to complement the findings obtained from the student questionnaires and lecturer interviews in this mini-research.

#### **1. Ecolinguistic Analysis**

From an ecolinguistic perspective, the text demonstrates the following characteristics:

a. Ecological representation through critical narrative

The text begins with a description of changes in the relationship between humans and nature as a consequence of industrialization. Terms such as “profound transformation,” “ecological challenges,” and “environmental degradation” indicate that language is employed to construct a narrative of environmental crisis. This aligns with the concept of “stories we live by” (Stibbe, 2015), namely narratives that shape how society perceives the natural world.

b. Critique of consumerist ideology

The text highlights modern human consumption practices and behaviors that impact the environment, such as fast fashion, private vehicle use, and single-use plastics. It demonstrates the use of language to critique environmentally unsustainable consumption values, which is consistent with the ecolinguistic function of exposing ideologies that are harmful to nature (Fill & Muhlhausler, 2001).

c. Provision of ecological discourse examples

The material incorporates factual data, for example: “More than eight million tons of plastic waste enter the ocean every year” (UNEP, 2023).

This figure reinforces the discourse of environmental crisis that is commonly found in global ecological discourse.

d. Identification of greenwashing phenomena

The analysis of greenwashing in the text reflects how language and visual marketing are often used to manipulate public perception. This section is particularly relevant to ecolinguistic learning, as it teaches students how to recognize hidden ideologies embedded in multimodal texts.

## 2. Multimodality Analysis

Although the main text is primarily verbal, the material has strong potential to be developed into a multimodal format because it:

a. Invites the use of visuals, icons, and graphics

The text refers to the following multimodal elements: 1) images of forest fires, 2) graphs showing increases in emissions, 3) infographics on plastic pollution, 4) photographs depicting climate change, and 5) environmental campaign videos

According to Kress and van Leeuwen’s (2006) theory, such visual elements strengthen ecological meanings and assist students in critically interpreting environmental representations.

b. Suitability for multimodal reading tasks

For example:

- 1) Analyzing lexical choices in conjunction with satellite images of climate change,
- 2) Examining news framing alongside documentary video excerpts, and
- 3) Distinguishing language framing between “*future challenge*” and “*current crisis*.”

This multimodality aligns with students’ needs as indicated in the questionnaire, in which 62.5% of respondents expressed a preference for visual materials, videos, and infographics.

c. Relevance for multimodal speaking projects

The text addresses:

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1. Debates on environmental policies
2. Presentations on sustainability solutions, and
3. Social media campaigns.

These activities support students' needs for project-based learning, which was favored by 40% of the respondents.

### 3. Content Analysis for Language Learning

From a pedagogical perspective, the material is particularly strong for the following reasons:

#### a. Complex academic language

The text contains:

- 1) argumentative structures
- 2) Statistical data
- 3) theoretical concepts (e.g., ecolinguistics, critical literacy, sustainability),
- 4) academic vocabulary (e.g., *degradation, biodiversity, advocacy, multimodal representation*)

This aligns with students' needs to develop: 1) academic reading, 2) vocabulary in sustainability themes, and 3) critical discourse analysis skills

#### b. Inclusion of relevant global issues

In the survey, students identified topics such as:

- 1) Climate change,
- 2) Plastic pollution, and
- 3) Campus ecological awareness

The text addresses all of these topics, making it suitable as an English for Specific Purposes (ESP) material focused on sustainability, which is increasingly required for 21st-century learners.

#### c. Applicability to multiple language skills

| Skill                 | Potential Learning Activities                          |
|-----------------------|--|
| Reading               | critical reading, skimming–scanning, thematic analysis |
| Speaking              | debate, discussion, persuasive speech                  |
| Writing               | analytical essay, ecological reflection                |
| Multimodal production | poster, slogan, campaign video                         |

### 4. Discourse Structure Analysis

From a structural perspective, the text consists of the following components:

1. An introduction addressing changes in the human–environment relationship
2. The impacts of modern consumption,
3. The role of language in shaping ecological awareness,
4. The role of higher education,
5. The role of students and activism, and
6. A conclusion accompanied by a call to action.

This structure makes the text particularly suitable for: 1) discourse analysis, 2) thematic mapping, 3) argument structure analysis, and 4) critical ecolinguistics mapping

The material “Ecological Awareness in Modern Society” emphasizes ecological awareness as a foundation for developing sustainable behaviors and policies. By fostering an understanding of the impacts of human activities on the environment, the material encourages behavioral change and concrete actions aimed at preserving the earth.

### **B. Students’ Needs in Ecolinguistics-Based Multimodal Language Learning**

The results of the analysis indicate that students require varied language learning approaches that incorporate not only verbal texts but also diverse semiotic modes such as images, videos, infographics, and digital media. These findings are consistent with Kress and van Leeuwen’s (2001), theory of multimodality, which emphasizes that contemporary learning necessitates the use of multiple forms of meaning representation in order to be more contextualized and aligned with modern communicative practices.

Students also require learning materials related to environmental issues to enhance their ecological awareness. This need can be understood from an ecolinguistic perspective (Stibbe, 2015), which asserts that language plays a crucial role in shaping ecological perceptions. Accordingly, instructional materials that integrate environmental themes can assist students in understanding the relationship between language, ideology, and sustainability.

Furthermore, students need learning experiences that align with their academic and professional demands. According to Hutchinson and Waters (1987), needs analysis framework, which encompasses necessities, lacks, and wants, students in this context require instructional materials that support their ability to comprehend multimodal texts and environmental issues as part of 21st-century literacy competencies. Based on the collected data, students expressed a preference for interactive, project-based, and collaborative learning supported by the use of digital technology. The following section presents data on the types of materials most needed by students in ecolinguistics-based language learning.

Table 1. The Needs for Ecolinguistics-Based Language Learning Materials

| No | Type of Material  | Number of Respondents | Percentage |
|----|---|-----------------------|------------|
| 1  | Environment-themed texts  | 13                    | 32,5%      |
| 2  | Ecological discourse analysis   | 16                    | 40%        |
| 3  | Ecolinguistic case studies  | 24                    | 60%        |
| 4  | Vocabulary and expressions related to environmental issues              | 16                    | 40%        |
| 5  | Instructional materials addressing language ideology and sustainability | 14                    | 35%        |

Based on the data, a total of 40 respondents completed the questionnaire, and they were allowed to select more than one type of material. The results indicate that students require ecolinguistics-based language learning materials such as environment-themed texts (32.5%), ecological discourse analysis (40%), ecolinguistic case studies (60%), vocabulary and expressions related to environmental issues (40%), and materials addressing language ideology and sustainability



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(35%). These findings suggest that ecolinguistics-based language learning materials are highly needed in higher education, particularly at Universitas Tangerang Raya.

Furthermore, the results reveal a strong tendency indicating that students perceive the integration of environmental and sustainability issues as an essential component of language learning. The data illustrating this tendency are presented in the following diagram.

Table 2. Level of Importance of Integrating Environmental and Sustainability Materials in Ecolinguistics-Based Language Learning

| No | Level of Importance  | Number of Respondents | Percentage |
|----|----------------------|-----------------------|------------|
| 1  | Very important       | 17                    | 42,5%      |
| 2  | Important            | 21                    | 52,5%      |
| 3  | Moderately important | 2                     | 5%         |
| 4  | Not important        | 0                     | 0%         |
|    | Total                | 40                    | 100%       |

The data indicate that 95% of students consider environmental topics to be highly relevant for integration into language learning materials. This finding suggests that students are aware of the importance of ecological literacy and perceive language learning as a means of fostering awareness of sustainability.

These results provide a strong foundation for the implementation of a multimodal ecolinguistic approach, as students already demonstrate interest in and readiness to engage with materials that integrate text, images, videos, and environmental topics.

Thus, it can be concluded that the majority of students support and require language learning materials that incorporate environmental and sustainability perspectives.

### C. Required Materials, Media, and Learning Resources

The findings indicate that instructional materials should be designed by integrating verbal, visual, and auditory texts, enabling students to interpret messages through multiple modes. This is consistent with multimodality theory, which posits that meaning is constructed through the combination of various semiotic modes rather than solely through written language.

From an ecolinguistic perspective, instructional materials are expected to present critical ecological narratives, including representations of the environment in academic texts, mass media, and digital communication. This aligns with Fairclough's (1995) view in Critical Discourse Analysis (CDA) that every text carries particular ideologies, including those related to sustainability.

The learning media expected by students include:

1. Educational videos on environmental issues
2. Infographics on ecological representation
3. Ecological posters or environmental campaign materials
4. Audio podcasts
5. Digital books (e-modules)

6. Interactive presentation slides
7. Multimodal scholarly articles

The following presents the results of the needs analysis regarding multimodal and ecolinguistics-based language learning media.

Table 3. Effective Multimodal Learning Media

| No | Type of Media                   | Number<br>Respondents | of Percentage |
|----|---------------------------------|-----------------------|---------------|
| 1  | Educational videos              | 25                    | 62,5%         |
| 2  | Interactive presentation slides | 8                     | 20%           |
| 3  | Ecological posters              | 4                     | 10%           |
| 4  | Digital books (e-modules)       | 2                     | 5%            |
| 5  | Audio podcasts                  | 1                     | 2,5%          |
|    | Total                           | 40                    | 100%          |

Based on the data above, the demand for educational videos is the highest, reaching 62.5%, followed by interactive presentation slides at 20%, ecological posters or environmental campaign materials at 10%, digital books (e-modules) at 5%, and audio podcasts at 2.5%. These data indicate that multimodal language learning materials are highly needed in higher education, particularly at Universitas Tangerang Raya.

The required learning resources are not limited to textbooks but also include digital materials such as websites, open-access scholarly journals, and audiovisual content. Research conducted by Zhang and Ben Said (2022) supports these findings by demonstrating that the use of multimodal materials can enhance students' literacy and ecological awareness.

Therefore, the development of instructional materials and media should emphasize an ecological multimodal combination that aligns with students' learning needs and the demands of 21st-century literacy skills.

An analysis of the most effective learning strategies for ecolinguistics-based multimodal materials is presented in the following diagram.

Table 4. Effective Learning Strategies for Multimodal Ecolinguistics

| No | Learning Strategies  | Number<br>Respondents | of Percentage |
|----|--|-----------------------|---------------|
| 1  | Project-based learning (ecological posters, videos, and slogans) | 16                    | 40%           |
| 2  | Environmental observation and reflection                         | 15                    | 37,5%         |
| 3  | Group discussion   | 4                     | 10%           |
| 4  | Interactive presentations  | 4                     | 10%           |
| 5  | Text and image analysis  | 1                     | 2,5%          |
|    | Total respondents  | 40                    | 100%          |

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The graph above indicates that project-based learning is the most preferred learning strategy among students, accounting for approximately 40%. This suggests that students find it easier to understand ecolinguistic content through hands-on practices, such as creating posters, videos, or environmental slogans. Environmental observation and reflection rank second at 37.5%, indicating that students favor learning approaches grounded in real-life experiences and direct engagement with their surroundings. Group discussion (10%) and interactive presentations (10%) are selected by a smaller proportion of students; however, both are still considered effective in supporting comprehension, particularly in exchanging perspectives and presenting analytical outcomes. Finally, text and image analysis receives the lowest percentage at 2.5%, suggesting that students tend to prefer more practical and creative strategies over those that are purely analytical.

Thus, it can be concluded that the majority of students prefer learning approaches that are practical, creative, and experience-based rather than those that focus solely on textual analysis. This finding reinforces the notion that a multimodal ecolinguistic approach is likely to be more effective when implemented through project-based learning and environmental observation strategies.

#### **D. Lecturers' Perspectives and Supporting and Inhibiting Factors in Ecolinguistics-Based Multimodal Language Learning**

Based on interviews with lecturers, findings were obtained regarding their understanding, experiences, and perceptions of implementing language courses such as reading and speaking using a multimodal ecolinguistic theme at the university level. Overall, the lecturers demonstrated a positive attitude toward the use of multiple modes in language learning, although the level of implementation remains suboptimal due to several structural and technical constraints.

##### **1. Lecturers' Perspectives on the Multimodal Ecolinguistic Approach**

Lecturers believe that a multimodal approach to language learning is highly relevant, particularly in enhancing students' comprehension. It has been demonstrated that the use of text, images, audio, video, and digital media helps make language concepts more concrete, engaging, and accessible to students with diverse learning styles. This view is consistent with multimodality theory (Kress & van Leeuwen, 2006), which emphasizes that meaning is generated not only through verbal language but also through the interaction of multiple semiotic modes.

However, with regard to the integration of an ecolinguistic perspective, lecturers acknowledge that it has not yet been implemented systematically. The ecolinguistic approach has only been applied to a limited number of materials, while the primary focus remains on social issues. This indicates that the understanding and use of language as a representation of ecological ideology (Stibbe, 2015) still need to be strengthened through material development and targeted professional training.

Lecturers teaching the courses estimate the relevance of multimodal ecolinguistic learning at approximately 60%. According to them, full relevance could be achieved if adequate instructional materials and stronger institutional support were available.

## **2. Needs for Materials and Media**

Lecturers identified that materials most suitable for a multimodal ecolinguistic approach are those used in reading and speaking courses, as these skills heavily rely on visual representation, ecological context, and meaning interpretation through multiple modes. Text-based materials such as environmental articles, ecological reports, green campaign posters, documentary videos, and infographics were considered to have strong potential for use.

The media perceived as most effective include:

- a. Educational videos on socio-ecological issues;
- b. Infographics illustrating the relationship between language and ecological values; and
- c. Digital texts and authentic discourses such as environmental campaigns, green slogans, and sustainability-related articles.

These media assist students in analyzing how language shapes, reflects, or even transforms the relationship between humans and the environment, as explained in ecolinguistic theory (Fill dan Muhlhausler, 2001).

## **3. Supporting Factors**

Lecturers mentioned several aspects that support the implementation of multimodal ecolinguistic learning:

- a. The availability of digital media, such as projectors, digital learning platforms, and internet access, which facilitates the use of videos, images, and other multimodal materials;
- b. Lecturers' preparedness in using media, as technological competence enables more varied and engaging material presentation; and
- c. Students' ability to access multiple modes of communication, as they are accustomed to digital media and thus more responsive to learning that employs diverse modalities.

These factors indicate that the institution is already on a path that supports educational innovation, although further optimization is still required to achieve more systematic ecolinguistic integration.

## **4. Inhibiting Factors**

Several major obstacles identified by the lecturers include:

- a. Limited technological facilities. Not all classrooms are equipped with adequate multimedia devices, which hinders the consistent use of multimodal media.
- b. Variation in students' abilities in multimodal and ecolinguistic analysis. Students with lower discourse analysis skills experience difficulty in interpreting meanings derived from the combination of text, images, and ecological context.
- c. Time constraints. Integrating multiple modes and ecolinguistic aspects requires more instructional time compared to conventional teaching approaches.

These constraints reinforce Hutchinson & Waters (1987) assertion that the success of needs-based instruction is determined not only by instructional materials but also by institutional contexts and learner characteristics.

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## 5. Implications of the Analysis

The interview results indicate that the implementation of multimodal ecolinguistic learning has considerable potential; however, it requires:

- a. The development of curricula and instructional materials grounded in the principles of multimodal ecolinguistic learning;
- b. Professional development for lecturers to enhance their multimodal and ecolinguistic literacy;
- c. The provision of adequate supporting facilities; and
- d. Learning strategies that are aligned with students' varying abilities.

This analysis highlights the importance of needs analysis as a foundation for developing learning practices that are sustainable and relevant to contemporary educational contexts.

## CONCLUSION

This mini-research demonstrates that multimodal ecolinguistics-based language learning is perceived as both relevant and necessary in higher education. Both students and lecturers consider the integration of environmental issues into language teaching materials to be important for enhancing ecological awareness while simultaneously enriching language skills through multiple modes such as text, images, audio, and video. The findings also confirm that the most effective learning strategies are project-based learning and environmental observation, as these approaches provide direct and contextualized learning experiences.

Lecturers believe that this approach can foster students' competencies, although its implementation is still constrained by limitations in facilities, time, and variations in students' analytical abilities. Overall, these findings underscore the need to develop language learning designs that are more responsive to students' needs, supported by sustainability-oriented multimodal materials and strengthened ecolinguistic competencies.

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