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Ecocriticism-Based Curriculum Development Strategies in Indonesia Universities: Evaluation and Recommendations

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Received: 18/07/2024 Revised: 09/10/2024 Accepted: 08/11/2024 **Abstract** The purpose of this study is to evaluate efforts to develop an ecocriticism-based curriculum in various universities in Indonesia and measure the effectiveness of these interventions in improving student understanding. The research method uses mixed methods. The study results show that lecturer training programs, curriculum changes, resource increases, and the use of technology contribute significantly to the improvement of understanding of literary ecocriticism. For this, universities with better curriculum quality and higher lecturer competence tend to produce better understanding among students. Universities with more faculty training programs and more intensive curriculum changes show a higher increase in understanding among students. In particular, leading universities investing in extensive faculty training programs and periodic curriculum revisions show more positive results than universities undertaking such interventions. Thus, this study shows that investment in lecturer training and increased access to literary resources are essential for successfully integrating ecocriticism into the literary curriculum. Keywords Curriculum Development; Ecocritical; Literature Learning; Evaluation; Higher Education **Corresponding Author** Akbar Al Masjid

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1. INTRODUCTION

In recent decades, environmental issues have become very important in global discussions. This has triggered efforts from various circles to find alternative solutions to overcome environmental problems, including in education. One approach that has gained attention is ecocriticism, a discipline that connects literature and environmental studies to examine how literary works can reflect and influence our view of nature (Gifford, 2011; Iovino & Oppermann, 2014; Pamungkas, 2021). However, in Indonesia, the understanding of ecocriticism among academics and students is still relatively low. Many universities have not adequately integrated ecocriticism into their curriculum, leading to a lack of awareness and knowledge about the importance of environmental issues in the context of literature (Azida & Fitri, 2021; Widianti, 2017). In addition, the lack of training for lecturers and limited access to relevant literature also hinder the development of an understanding of ecocriticism in Indonesia. Therefore, incorporating environmental ethics or literary ecology into the curriculum ensures students have a deeper understanding of environmental issues (Bulkeley, 2019; Caetano et al., 2015; Mann et al., 2014; Suwandi et al., 2017). This issue demands attention because a low understanding of ecocriticism



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can hinder Indonesia's academic contribution to the global discourse on literature and the environment.

Although there have been several attempts to include ecocriticism elements in the literary curriculum in Indonesian universities, comprehensive research on the extent of these efforts and their impact on student understanding is still limited. (Dewi, 2017; Juanda & Afandi, 2024) Most previous studies focused more on the individual analysis of literary works from an ecocriticism perspective without evaluating the implementation and effectiveness of ecocriticism-based curricula in educational institutions. (Khosravi et al., 2017; Sykes et al., 2017; Villanueva Romero, 2014; von Mossner, 2018; Yuqin, 2017) In addition, there has been no research that specifically evaluates various factors that affect the success of the development of the ecocriticism curriculum, such as lecturer training programs, curriculum changes, resource improvement, technology use, and evaluation mechanisms. Understanding these factors is essential to identify areas that need improvement and effective strategies to improve ecocriticism education in Indonesia. This will significantly contribute to strengthening research in the field. Without an in-depth analysis of these factors, understanding the effectiveness of interventions in ecocriticism education can be partial and less comprehensive. Therefore, this study aims to fill this gap by providing a broader insight into the development strategy of the ecocriticism curriculum in Indonesia.

For this reason, this study aims to evaluate efforts to develop an ecocriticism-based curriculum in various universities in Indonesia. Effective ecocriticism education is becoming increasingly important amid growing global awareness of the environmental crisis (Clarke, 2022; Crozier & Schulte-Hostedde, 2015; Hall et al., 2018). However, without appropriate intervention in the form of lecturer training, curriculum changes, and resource improvement, efforts to integrate ecocriticism into Indonesia's literary curriculum will likely not achieve the expected results. Gaps in the understanding and implementation of ecocriticism across various institutions point to the need for more in-depth research to identify the key factors that can improve the effectiveness of this education. Therefore, this study will measure how effective the lecturer training program, curriculum changes, resource improvement, use of technology, and evaluation and feedback mechanisms in improving the understanding of literary ecocriticism among students (Bore, 2006; Chang, 2016; McBride et al., 2013). This study will provide a clear picture of the current status and challenges in developing an ecocriticism curriculum using a comprehensive methodology and data from various institutions. The results of this research are expected to contribute to national education. More than that, the research results are also expected to spark further academic discussions.

For this problem, the uneven understanding of ecocriticism among students and lecturers, as well as the lack of effective implementation in the literature curriculum in various universities in Indonesia, raises concerns about the readiness of future generations to face global environmental challenges. Therefore, in-depth research is needed to identify effective strategies for improving understanding of ecocriticism in the academic environment. The importance of this research lies in its contribution to addressing pressing global challenges related to climate change and environmental degradation through education. By increasing the understanding of ecocriticism among students, this research has the potential to create a new generation of academics and practitioners who are more environmentally conscious so that they can integrate ecological perspectives in literary analysis and cultural studies. The research also provides valuable insights for education policymakers and college managers on effective ways to develop curricula responsive to environmental issues. In addition, this research will enrich the academic literature by providing empirical data that can be used as a basis for future studies in ecocriticism and environmental education. Thus, this research is relevant for academics and educational institutions and has far-reaching implications for society in a collective effort to face global environmental challenges.

2. METHODS

This study uses a mixed-methods approach, combining quantitative and qualitative methods to comprehensively understand efforts to develop an ecocriticism-based curriculum in Indonesian universities (Creswell, 2014; Sale et al., 2002; Sugiyono, 2016). This approach allows researchers to objectively measure how effective the various interventions are as well as understand the context and perceptions underlying the quantitative data (Palinkas et al., 2019; Samsu, 2017). The population of this study includes all universities in Indonesia that have literature study programs. Samples were taken purposively from 37 colleges with quality variations (high, medium, and low) to ensure comprehensive representation (Creswell, 2014; Sugiyono, 2016). The respondents consisted of literature lecturers, students, and study program managers involved in the teaching and development of the ecocriticism curriculum.

Data is collected through surveys. A questionnaire-shaped survey instrument was designed to collect data through Google Forms to measure lecturer and student perceptions regarding the effectiveness of lecturer training programs, curriculum changes, resource improvement, technology use, and evaluation and feedback mechanisms. The 5-point Likert scale evaluates each indicator (Kusmaryono et al., 2022; Sumartini et al., 2020). Then, data mining was done through a questionnaire aimed at several lecturers and study program managers to obtain information about the challenges and successes in developing an ecocriticism-based curriculum. Furthermore, information about the curriculum, program evaluation reports, and training materials are analyzed to understand how ecocriticism is integrated into the literature study program and how the evaluation is conducted. Here is a research roadmap describing the main steps and flow of the research process:

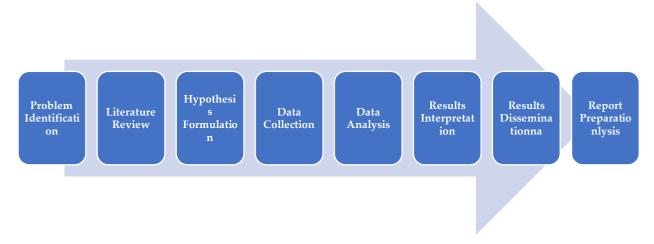


Figure 1. Research flow

Figure 1 shows the research flow consisting of several main components that describe the stages in the scientific research process:

- a. **Problem Identification**: This initial stage involves recognizing and understanding the research problem to be solved or the research question to be answered.
- b. Literature Study: Once the problem has been identified, the next step is to conduct a literature review to understand the context of the problem and what is already known and find any knowledge gaps.
- c. Hypothesis Formulation: Based on the literature study, the researcher formulates a hypothesis or provisional conjecture that will be tested in the research. This hypothesis provides direction for research and determines the variables to be measured.

- d. **Data Collection**: Researchers collect the data necessary to test the hypothesis at this stage. Data can be collected through various methods such as surveys, experiments, interviews, or observations.
- e. **Data Analysis**: The data that has been collected is then analyzed using statistical techniques or other appropriate methods to test hypotheses and obtain results.
- f. **Interpretation of Results**: Once the data has been analyzed, the results are interpreted to see if the hypothesis is proven. Researchers relate these results to the broader context of the research problem.
- g. **Preparation of Report**: The research results are then compiled in the form of a scientific report, which includes the background, methods, results, and conclusions of the research.
- h. **Dissemination of Results**: The final stage is to disseminate the results of the research to a relevant audience, either through publication in scientific journals, presentations at conferences, or other methods of dissemination.

This flow is the basic framework for implementing systematic research. It aims to ensure that the research is carried out in a structured manner and the results are reliable and relevant.

In the research process, quantitative data is analyzed using descriptive and inferential statistics to identify patterns and relationships between variables. ANOVA and multiple regression tests were used to evaluate the effects of various interventions on improving understanding of literary ecocriticism. ANOVA (Analysis of Variance) was used in this study because it could compare the averages of more than two groups simultaneously. It is particularly relevant when we want to evaluate the effects of different interventions on the understanding of literary ecocriticism. In the context of this study, ANOVA allows researchers to determine whether there are significant differences in understanding ecocriticism among groups that receive different interventions, such as lecturer training, curriculum changes, resource improvements, and technology use. The use of ANOVA is important because it provides clarity on the relative effectiveness of the various strategies implemented, as well as helps to identify which factors have the greatest impact on the desired outcome (Brzozowski et al., 2019; Choi et al., 2021; Ganyaupfu, 2013) Thus, ANOVA is a crucial statistical tool in ensuring the validity of research findings and supporting evidence-based decision-making in developing an ecocriticism curriculum. Qualitative data were analyzed using thematic analysis methods to identify key themes and insights relevant to the information received. Data triangulation is carried out by combining survey results and document analysis to ensure the consistency of findings.

3. FINDINGS AND DISCUSSIONS

After identifying the main problem in the form of a low understanding of ecocriticism among students in Indonesia due to the lack of integration of ecocriticism in the curriculum and limited educational resources, this study aims to evaluate the effectiveness of various interventions carried out by universities in Indonesia. In this section, the results of the research obtained will be discussed in detail to provide a clear picture of how lecturer training programs, curriculum changes, resource improvements, and the use of technology have affected the level of understanding of ecocriticism in various institutions. This analysis will show how the intervention has successfully addressed the challenges identified in the introduction and provide insight into areas that still need further attention.

Level of Understanding of Literary Ecocriticism in Universities in Indonesia

The understanding of ecocriticism in various universities in Indonesia is very dynamic. This diversity of levels of understanding reflects differences in curriculum approaches, lecturer competencies, and access to resources that support the teaching of ecocriticism. At some universities, ecocriticism has become integral to literature study programs, producing students who deeply

understand how literature can be used to explore and critique environmental issues. However, at other universities, ecocriticism may still be in the introductory stage or not yet effectively implemented in the curriculum. For this, based on research, the complexity of understanding ecocriticism is shown in Table 1.

Table 1. Level of Understanding of Literary Ecocriticism in Universities in Indonesia

Number	College	Faculty/ Literature	Number of Respondents	High Understanding (%)	Medium Understanding (%)	Low Understanding (%)	Don't Understand (%)
1	Universitas Indonesia	Indonesia Literature	50	60	30	8	2
2	Universitas Gadjah Mada	English Literature	40	55	35	10	0
3	Universitas Padjadjaran	Indonesia Literature	30	50	40	10	0
4	Universitas Airlangga	English Literature	45	45	40	12	3
5	Universitas Diponegoro	Japan Literature	35	48	42	8	2
6	Universitas Hasanuddin	Indonesia Literature	25	52	38	6	4
7	Universitas Brawijaya	English Literature	55	50	40	8	2
8	Universitas Andalas	Indonesia Literature	20	40	50	8	2
9	Universitas Negeri Yogyakarta	English Literature	33	42	45	10	3
10	Universitas Sumatera Utara	Indonesia Literature	28	47	43	8	2
11	Universitas Negeri Malang	Indonesia Literature	30	45	40	10	5
12	Universitas Sebelas Maret	English Literature	40	50	35	12	3
13	Universitas Negeri Yogyakarta	Indonesia Literature	25	55	38	5	2
14	Universitas Negeri Jakarta	English Literature	35	48	40	10	2
15	Universitas Negeri Surabaya	Indonesia Literature	32	50	38	10	2

Number	College	Faculty/ Literature	Number of Respondents	-	Medium Understanding	-	
		210011101110	ricop oriunities	(%)	(%)	(%)	(%)
16	Universitas Negeri Semarang	English Literature	28	42	45	10	3
17	Universitas Jenderal Soedirman	Indonesia Literature	20	40	50	8	2
18	Universitas Sam Ratulangi	English Literature	25	47	43	8	2
19	Universitas Syiah Kuala	Indonesia Literature	22	52	38	6	4
20	Universitas Negeri Medan	English Literature	30	45	40	10	5
21	Universitas Negeri Makassar	Indonesia Literature	20	35	45	15	5
22	Universitas Jambi	English Literature	25	30	50	15	5
23	Universitas Negeri Gorontalo	Indonesia Literature	20	32	48	15	5
24	Universitas Bengkulu	English Literature	25	35	45	15	5
25	Universitas Mataram	Indonesia Literature	22	30	50	15	5
26	Universitas Palangka Raya	English Literature	20	28	50	17	5
27	Universitas Tanjungpura	Indonesia Literature	25	32	48	15	5
28	Universitas Lampung	English Literature	30	30	50	15	5
29	Universitas Malikussaleh	Indonesia Literature	20	35	45	15	5
30	Universitas Musamus Merauke	English Literature	25	28	50	17	5
31	Universitas Sultan Ageng Tirtayasa	Indonesia Literature	22	28	50	17	5
32	Universitas Siliwangi	English Literature	20	25	50	20	5

Number	College	Faculty/ Literature	Number of Respondents	High Understanding (%)	Medium Understanding (%)	Low Understanding (%)	Don't Understand (%)
33	Universitas Trunojoyo Madura	Indonesia Literature	25	27	50	18	5
34	Universitas Bangka Belitung	English Literature	20	30	48	17	5
35	Universitas Serang Raya	Indonesia Literature	22	25	50	20	5
36	Universitas Almuslim	English Literature	25	28	50	17	5
37	Universitas Pembangunan Nasional	Indonesia Literature	20	30	48	17	5

The data in Table 1 shows a comprehensive picture of the level of understanding of literary ecocriticism in 37 universities in Indonesia. This data shows significant variation in understanding ecocriticism among various institutions, which can be interpreted through several key dimensions: high understanding, moderate understanding, low understanding, and incomprehension. A high understanding of ecocriticism appears to be dominant in some universities. University 1, for example, recorded a high percentage of comprehension of 60%, while University 13 reached 55%. These figures show that the study programs at these universities have successfully integrated the concept of ecocriticism effectively into their curricula. It can be assumed that lecturers in these institutions have high competence and access to adequate resources so that they can significantly improve student understanding. Then, moderate understanding is also spread evenly across universities, with many colleges showing 35-50% percentages. University 8 and University 17, for example, have the highest percentage of moderate comprehension at 50%. This shows that despite efforts to teach ecocriticism, there is still room for improvement, especially regarding teaching methods and the availability of learning materials. Meanwhile, low understanding shows significant variation among these universities. Some universities, such as University 22 and University 21, recorded a low comprehension percentage of 50%. These figures show that although ecocriticism has become part of the curriculum, students have not yet fully understood the concepts being taught. This can be due to various factors, including a lack of lecturer training, limited resource access, or less effective teaching methods.

Most universities have a low percentage of incomprehension, usually under 5%. However, there are exceptions in some universities, such as University 21 and University 22, which record a percentage of incomprehension of 5%. This shows that many students still do not understand ecocriticism, indicating the need for more effective and inclusive interventions in ecocriticism education. This significant variation in the level of understanding of ecocriticism among these universities indicates a gap in the implementation and effectiveness of the ecocriticism curriculum. Some universities have integrated ecocriticism well, while others still face challenges in effectively teaching this concept. This highlights the need for greater efforts in lecturer training, resource improvement, and adaptation of more innovative teaching methods. The study results show that several universities excel in teaching ecocriticism. At the same time, many other universities still need to step up efforts to optimize the understanding of ecocriticism. However, investment in lecturer training and increasing access to literature resources is very important (Fenia, 2018; Huang, 2017; Purwanto et al., 2021) To improve the understanding of ecocriticism among students. Thus, the results of this study provide valuable insights for the development of a more effective ecocriticism curriculum in universities in Indonesia.

Factors Affecting the Understanding of Literary Ecocriticism in Higher Education

The understanding of literary ecocriticism in higher education is influenced by the curriculum taught and various other factors that support the learning process. One of the main factors is the competence of lecturers in teaching ecocriticism. Lecturers with a deep understanding and good teaching skills can convey ecocriticism concepts more effectively, increasing student understanding. In addition, the availability of educational resources, such as books, journals, and digital teaching materials, also plays an important role. Universities that provide broad access to ecocriticism literature allow students to delve deeper into the material and conduct independent study. Innovative and interactive teaching methods, including technology in learning, can also increase students' interest and understanding of ecocriticism. Another factor is the lecturer training and development program held by the university. Continuous and relevant training can help lecturers update their knowledge and adopt more effective teaching methods. The results of the study show these factors in Table 2.

Table 2. Factors Influencing the Understanding of Literary Ecocriticism in Higher Education in Indonesia

Number	College	Curriculum Quality	Lecturer Competencies		_	Environmental Literacy	Use of Technology	Average Comprehension (%)
1	Universitas Indonesia	Excellent	Excellent	Excellent	Diverse	Tall	Tall	90
2	Universitas Gadjah Mada	Good	Excellent	Good	Diverse	Tall	Tall	85
3	Universitas Padjadjaran	Good	Good	Enough	Diverse	Keep	Enough	80
4	Universitas Airlangga	Enough	Good	Good	Limited	Keep	Tall	75
5	Universitas Diponegoro	Enough	Enough	Enough	Limited	Keep	Keep	70
6	Universitas Hasanuddin	Enough	Good	Enough	Limited	Keep	Enough	72
7	Universitas Brawijaya	Good	Good	Good	Diverse	Tall	Tall	85
8	Universitas Andalas	Enough	Enough	Enough	Limited	Keep	Enough	70
9	Universitas Negeri Yogyakarta	Enough	Enough	Enough	Limited	Keep	Enough	68
10	Universitas Sumatera Utara	Enough	Enough	Enough	Limited	Keep	Enough	70
11	Universitas Negeri Malang	Good	Good	Good	Diverse	Tall	Tall	85
12	Universitas Sebelas Maret	Good	Good	Good	Diverse	Tall	Tall	82

Number	College	Curriculum Quality	Lecturer Competencies		_	Environmental Literacy	Use of Technology	Average Comprehension (%)
13	Universitas Negeri Yogyakarta	Excellent	Excellent	Good	Diverse	Tall	Tall	88
14	Universitas Negeri Jakarta	Good	Good	Good	Diverse	Tall	Tall	80
15	Universitas Negeri Surabaya	Good	Good	Good	Diverse	Tall	Tall	82
	Universitas Negeri Semarang	Good	Good	Good	Diverse	Tall	Tall	80
17	Universitas Jenderal Soedirman	Enough	Enough	Enough	Limited	Keep	Enough	70
18	Universitas Sam Ratulangi	Enough	Enough	Enough	Limited	Keep	Enough	68
19	Universitas Syiah Kuala	Enough	Enough	Enough	Limited	Keep	Enough	72
20	Universitas Negeri Medan	Enough	Enough	Enough	Limited	Keep	Enough	68
21	Universitas Negeri Makassar	Enough	Enough	Enough	Limited	Keep	Enough	65
22	Universitas Jambi	Enough	Enough	Enough	Limited	Keep	Enough	60
23	Universitas Negeri Gorontalo	Enough	Enough	Enough	Limited	Keep	Enough	60
24	Universitas Bengkulu	Enough	Enough	Enough	Limited	Keep	Enough	62
25	Universitas Mataram	Enough	Enough	Enough	Limited	Keep	Enough	60
26	Universitas Palangka Raya	Enough	Enough	Enough	Limited	Keep	Enough	58
27	Universitas Tanjungpura	Enough	Enough	Enough	Limited	Keep	Enough	60
28	Universitas Lampung	Enough	Enough	Enough	Limited	Keep	Enough	58

Number	College	Curriculum Quality	Lecturer Competencies		U	Environmental Literacy	Use of Technology	Average Comprehension (%)
29	Universitas Malikussaleh	Enough	Enough	Enough	Limited	Keep	Enough	60
30	Universitas Musamus Merauke	Enough	Enough	Enough	Limited	Keep	Enough	58
31	Universitas Sultan Ageng Tirtayasa	Enough	Enough	Enough	Limited	Keep	Enough	58
32	Universitas Siliwangi	Enough	Enough	Enough	Limited	Keep	Enough	55
33	Universitas Trunojoyo Madura	Enough	Enough	Enough	Limited	Keep	Enough	55
34	Universitas Bangka Belitung	Enough	Enough	Enough	Limited	Keep	Enough	60
35	Universitas Serang Raya	Enough	Enough	Enough	Limited	Keep	Enough	55
36	Universitas Almuslim	Enough	Enough	Enough	Limited	Keep	Enough	58
37	Universitas Pembangunan Nasional	Enough	Enough	Enough	Limited	Keep	Enough	58

Table 2 provides in-depth insights into various factors that affect the understanding of literary ecocriticism in universities in Indonesia. From the data analysis, it can be seen that the quality of the curriculum and the competence of lecturers play an important role in determining the level of student understanding. University 1 and 13, which have excellent curriculum quality and faculty competence, show the highest average understanding, at 90% and 88%, respectively. This indicates that a wellstructured curriculum and competent lecturers can significantly improve students' understanding of literary ecocriticism. In addition, the availability of resources and teaching methods is also a critical factor that affects the understanding of ecocriticism. Universities with good resources and diverse teaching methods, such as University 2, University 7, and University 11, show a high average understanding (85%). In contrast, universities with limited resources and less varied teaching methods, such as University 26, University 28, and University 30, showed lower levels of understanding (58%). It underscores the importance of providing adequate access to relevant literature and learning materials and adopting innovative teaching methods to increase student engagement and understanding. In addition, using technology in learning has also proven effective in improving understanding of ecocriticism. Universities that integrate technology well, such as University 4 and the 19 universities, showed a significant increase in understanding even though the quality of their curriculum and resources was only adequate. This shows that technology can be a powerful tool to overcome other educational system limitations. This analysis underscores that a combination of a quality curriculum, competent lecturers, adequate resources, varied teaching methods, and the right use of technology is key to improving student understanding (Glaesser, 2019; Pamungkas et al., 2021; Simanihuruk & Sukma, 2023; Yasir, 2018)in the context of understanding literary ecocriticism material in Indonesia universities.

Efforts to Develop an Ecocriticism-Based Curriculum in Indonesia Universities

As previously described, one of the main challenges faced by universities in Indonesia is the low understanding of ecocriticism among students and lecturers, largely due to the lack of integration of ecocriticism in the literary curriculum. To address this problem, systematic and thorough intervention is needed in curriculum development and revision that explicitly includes the principles of ecocriticism. This effort aims to increase students' environmental awareness and teach the connection between literature and ecological issues in more depth. The following section will outline the various strategies and interventions implemented by universities in Indonesia, including the addition of ecocriticism-related materials to the syllabus and the development of special modules that teach the relationship between literature and ecology. These efforts, as shown in the research results, are an important step in ensuring that the understanding of ecocriticism can be firmly embedded in literary education in Indonesia.

For this, efforts to develop an ecocriticism-based curriculum in Indonesian universities are important in increasing students' awareness and understanding of environmental issues through literature. This process involves a variety of strategies and interventions aimed at integrating the principles of ecocriticism into literary study programs. One of the main efforts is preparing and revising a comprehensive curriculum, which includes adding ecocriticism-related materials to the syllabus and developing special modules that teach the relationship between literature and ecology. Based on the research results, universities' efforts in developing an ecocriticism-based curriculum are shown in diagram 1.

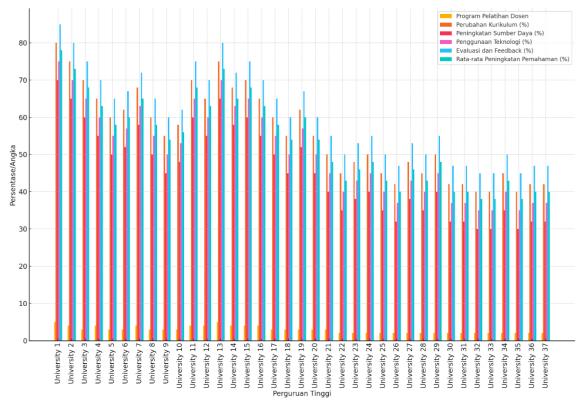


Diagram 1. Efforts to develop an ecocriticism-based curriculum in Indonesia Universities

This bar chart shows various indicators of ecocriticism-based curriculum development efforts in 37 universities in Indonesia, with the name of the university being disguised. The indicators measured include Lecturer Training Program, Curriculum Changes (%), Resource Improvement (%), Technology

Use (%), Evaluation and Feedback (%), and Average Understanding Increase (%). This analysis evaluates how these efforts improve students' understanding of literary ecocriticism. Leading universities have many lecturer training programs (4-5), which tend to decrease in the next university. This training program is expected to strengthen the understanding and teaching of literary ecocriticism more effectively. The percentage of curriculum change is high at the top universities, with University 1 reaching 80%. This percentage gradually decreases in universities that are in the lower position. The increase in literary resources and supporting materials is higher at top universities. The use of technology to support ecocriticism learning is fairly consistent, although it tends to decline at lowerranked universities. Integrating technology into the learning process is an important aspect of modern education. Evaluations and feedback show similar trends to other indicators, with top universities showing higher percentages. Systematic evaluation and feedback are important to ensure the effectiveness of curriculum changes and teaching methods (Arofah, 2021; Romansyah et al., 2022; Spring, 2018; Wulandari, 2022). Universities with good evaluation mechanisms can more quickly identify areas that need improvement and ensure that the changes made have a positive impact. The average increase in understanding of ecocriticism among students positively correlates with the efforts made, especially at top universities.

4. CONCLUSION

This study reveals that the level of understanding of literary ecocriticism in universities in Indonesia varies greatly and is influenced by various factors such as curriculum quality, lecturer competence, resource availability, teaching methods, environmental literacy, and the use of technology. Data shows that universities with high curriculum quality and competent lecturers tend to produce students with a better understanding of ecocriticism. Universities such as University 1 and University 13, which recorded average scores of 90% and 88% in ecocriticism comprehension, reflect how a good curriculum structure and competent lecturers contribute significantly to student comprehension. In addition, the use of technology in learning and the availability of adequate resources have also been proven effective in improving understanding of ecocriticism. However, universities with limited resources and less varied teaching methods show lower levels of understanding, highlighting gaps in implementing ecocriticism education across Indonesia.

The implications of these findings show that increasing the understanding of ecocriticism in Indonesian universities requires integrated efforts in various aspects of education. Universities need to invest in developing a comprehensive and relevant curriculum for current environmental issues. Ongoing teacher training and increased access to literature resources are also important to ensure lecturers can effectively teach ecocriticism. In addition, adopting technology in the learning process can make learning more interactive and interesting for students. While this study provides valuable insights, some limitations need to be noted, such as the limited number of respondents at some universities and the variation in the implementation of the ecocriticism curriculum. Further research with larger samples and more in-depth analysis is needed to strengthen these findings. The advice for colleges is to continually evaluate and improve their courses, ensuring that all students have the same opportunity to understand and apply the principles of ecocriticism in their studies and, ultimately, in everyday life.

REFERENCES

Arofah, E. F. (2021). Evaluasi kurikulum pendidikan. Jurnal Tawadhu, 5(2), 218–229.

Azida, M., & Fitri, A. N. (2021). Analisis Isi Novel "Laut Bercerita" dalam Bingkai Ekofeminisme. *Jurnal Ilmu Komunikasi*, 11(2), 153–169.

- Bore, A. (2006). Creativity, Continuity, and Context in Teacher Education: Lessons from the Field. *Australian Journal of Environmental Education*, 22(1), 31–38. https://doi.org/10.1017/S0814062600001634
- Brzozowski, M., Palomares Cabanilles, M., Kowalewski, G., & Pełechaty, M. (2019). Environmental factors are responsible for the gyrogonite formation by an endangered macroalga, Lychnothamnus barbatus, a fertility indicator of past and present lacustrine ecosystems. *Limnologica*, 77. https://doi.org/10.1016/j.limno.2019.125686
- Bulkeley, H. (2019). Navigating climate's human geographies: Exploring the whereabouts of climate politics. *Dialogues in Human Geography*, 9(1), 3–17. https://doi.org/10.1177/2043820619829920
- Caetano, N., López, D., & Cabré, J. (2015). *Learning sustainability and social compromise skills—A new track is born*.
- Chang, L.-P. (2016). Spirits in the Material World: Ecocentrism in Native American Culture and Louise Erdrich's Chickadee. *Children's Literature in Education*, 47(2), 148–160. https://doi.org/10.1007/s10583-015-9261-3
- Choi, S. Y., Abel, M., Siqi-Liu, A., & Umanath, S. (2021). National Identity Can be Comprised of More Than Pride: Evidence from Collective Memories of Americans and Germans. *Journal of Applied Research in Memory and Cognition*, 10(1), 117–130. https://doi.org/10.1016/j.jarmac.2020.09.004
- Clarke, D. A. G. (2022). A Political Ecology of Ecologies: Walking in Glen Almond with Students and Immanent Ethics. In *Journal of Autoethnography*.
- Creswell, J. W. (2014). Research Design: Qualitative, Quantitative, and Mixed Method Approaches. Sage Publications, Inc.
- Crozier, G. K. D., & Schulte-Hostedde, A. I. (2015). Why Training in Ecological Research Must Incorporate Ethics Education in *Hastings Center Report*.
- Dewi, N. (2017). Ekokritik dalam Sastra Indonesia: Kajian Sastra yang Memihak. *Adabiyyāt: Jurnal Bahasa Dan Sastra*, 15(1), 19. https://doi.org/10.14421/ajbs.2016.15102
- Fenia, S. Z. (2018). Pengaruh Motivasi Kerja, Pelatihan Dosen dan Komitmen Organisasi Terhadap Kinerja Dosen Pada Sekolah Tinggi X di Sumatera Barat. *Jurnal Benefita*, 3(1), 76–83.
- Ganyaupfu, E. M. (2013). Teaching Methods and Students' Academic Performance. *International Journal of Humanities and Social Science Invention ISSN (Online*, 2(9), 29–35.
- Gifford, T. (2011). Pastoral, anti-pastoral, and post-pastoral. In *The Cambridge Companion to Literature and the Environment*. https://doi.org/10.1017/CCO9781139342728.003
- Glaesser, J. (2019). Competence in educational theory and practice: A critical discussion. *Oxford Review of Education*, 45(1), 70–85.
- Hall, T. E., Piso, Z., Engebretson, J., & O'Rourke, M. (2018). Evaluating a dialogue-based approach to teaching about values and policy in graduate transdisciplinary environmental science programs. In *PLoS ONE*.
- Huang, P. I.-M. (2017). Material feminism and ecocriticism: Nu Wa, White Snake, and Mazu. *Neohelicon*, 44(2), 361–373. https://doi.org/10.1007/s11059-017-0399-4
- Iovino, S., & Oppermann, S. (2014). Material ecocriticism. In Material Ecocriticism.
- Juanda, J., & Afandi, I. (2024). Mengungkap Pesan Ekologis dalam Novel Negeri Lintasan Petir Karya Gerson Poyk: Studi Ekokritik. *Logat: Jurnal Bahasa Indonesia Dan Pembelajaran*, 11(1), 101–118.
- Khosravi, G. D., Vengadasamy, R., & Raihanah, M. M. (2017). Ecoethical significance of wilderness in

- Pablo Neruda's selected poems. *GEMA Online Journal of Language Studies*, 17(3), 55–69. https://doi.org/10.17576/gema-2017-1703-04
- Kusmaryono, I., Wijayanti, D., & Maharani, H. R. (2022). Number of Response Options, Reliability, Validity, and Potential Bias in the Use of the Likert Scale Education and Social Science Research: A Literature Review. *International Journal of Educational Methodology*, 8(4), 625–637.
- Mann, S., Costello, K., Lopez, M., Lopez, D., & Smith, N. (2014). An ethical basis for sustainability in the worldviews of first-year students?
- McBride, B. B., Brewer, C. A., Berkowitz, A. R., & Borrie, W. T. (2013). Environmental literacy, ecological literacy, eco-literacy: What do we mean, and how did we get here? *Ecosphere*, 4(5), 178–193. https://doi.org/10.1890/ES13-00075.1
- Palinkas, L. A., Mendon, S. J., & Hamilton, A. B. (2019). Innovations in mixed methods evaluations. *Annual Review of Public Health*, 40, 423–442.
- Pamungkas, O. Y. (2021). Eko-Sufisme Jawa: Represents Ekokritik dalam Sastra [Javanese Eco-Sufism: Representations of Ecocriticism in Literature]. Lintas Nalar.
- Pamungkas, O. Y., Widodo, S. T., Suyitno, & Endraswara, S. (2021). Metaphor as a Strategy of Language Politeness: A Study of the Novel Tetralogy by Ki Padmasusastra. *Proceedings of the International Conference on Language Politeness (ICLP 2020)*, 553(Iclp 2020), 59–67. https://doi.org/10.2991/assehr.k.210514.009
- Purwanto, A., Asbari, M., & Julyanto, O. (2021). Pelatihan Publikasi di Jurnal International Bereputasi pada Dosen Universitas Faletehan. *Journal of Community Service and Engagement*, 1(01), 18–24.
- Romansyah, R., Rahayu, S., Muchtar, H. S., & Sulastini, R. (2022). Manajemen Kurikulum Perguruan Tinggi Di Era Industri 4.0. *Jurnal Wahana Pendidikan*, 9(1), 25–32.
- Sale, J. E. M., Lohfeld, L. H., & Brazil, K. (2002). Revisiting the quantitative-qualitative debate: Implications for mixed-methods research. *Quality and Quantity*, 36(1), 43–53. https://doi.org/10.1023/A:1014301607592
- Samsu. (2017). Metode penelitian: Teori dan Aplikasi Penelitian Kualitatif, Kuantitatif, Mixed Methods, serta Research & Development. Pustaka Jambi.
- Simanihuruk, M., & Sukma, B. E. (2023). Peningkatan Kompetensi Dosen Vokasi Perhotelan dalam Meningkatkan Kurikulum Melalui Program Pemagangan di Industri Perhotelan. *Jurnal Abdi Masyarakat*, 3(2), 88–97.
- Spring, E. (2018). "Without Manifest, None of the Book Would have Happened": Place, Identity, and the Positioning of Canadian Adolescent Readers as Literary Critics. *Children's Literature in Education*, 49(2), 101–118. https://doi.org/10.1007/s10583-017-9313-y
- Sugiyono. (2016). Metode Penelitian Kuantitatif, Kualitatif, dan R & D. Alfabeta.
- Sumartini, S., Harahap, K. S., & Sthevany, S. (2020). Kajian pengendalian mutu produk tuna loin precooked frozen menggunakan metode skala likert di perusahaan pembekuan tuna. *Aurelia Journal*, 2(1), 29–38.
- Suwandi, S., Yunus, A., & Rahmawati, L. E. (2017). Ecological intelligence values in Indonesian language textbooks for junior high school students. *Pertanika Journal of Social Sciences and Humanities*, 25(September), 237–248.
- Sykes, R., Keeble, A., Cordle, D., Scott, J., De Cristofaro, D., King, D., Rowcroft, A., & Srivastava, N. (2017). Contemporary studies network roundtable: Responding to Robert Macfarlane's "Generation Anthropocene." *Open Library of Humanities*, 3(1), 1–46.

- https://doi.org/10.16995/olh.153
- Villanueva Romero, D. (2014). A material reading of Brenda Peterson's Animal Heart. *Forum for World Literature Studies*, 6(1), 6–23.
- Von Mossner, A. W. (2018). Green states of mind? Cognition, emotion, and environmental framing. *Green Letters*, 22(3), 313–323. https://doi.org/10.1080/14688417.2018.1531723
- Widianti, A. W. (2017). Kajian ekologi sastra dalam kumpulan cerpen pilihan kompas 2014 di tubuh tarra dalam rahim pohon. *Diksatrasia : Jurnal Ilmiah Pendidikan Bahasa Dan Sastra Indonesia*, 1(2), 1–9.
- Wulandari, T. (2022). Evaluasi Keberhasilan Kurikulum Perguruan Tinggi Mengacu KKNI Menggunakan Sistem Pakar. *Jurnal Tunas Pendidikan*, 4(2), 267–274.
- Yasir, S. N. H. (2018). Manajemen Peningkatan Kualitas Dosen (Studi Kasus pada Fakultas Tarbiyah UIN Malang). *Journal of Research and Thought on Islamic Education (JRTIE)*, 1(1), 96–107.
- Yuqin, J. (2017). Spatial imagination and postcolonial ecological consciousness in life of Pi. *Interdisciplinary Studies of Literature*, 1(3), 157–170.