



The Development of Eco-poetic Writing Activity Program with an Ecocritical Approach

Ira Fatmawati^{1*}, Djoko Saryono², Maryaeni³, Roekhan⁴

Abstract

The main background in this research is the difficulty of expressing ideas in critical thinking, the difficulty of choosing the right diction, and the increasing destruction to natural populations. The development of this eco-poetic writing activity program was expected to foster students' love for the natural surroundings, capability to think critically, and creatively. The basic framework of thinking used in writing eco-poetic is an ecocritical approach. The development of the activity program was carried out from the adaptation of Anderson's taxonomy of thinking, which starts with [1] remembering skills, [2] understanding skills, [3] applying skills, [4] analyzing skills, [5] evaluating skills, and [6] creating skills. The research method used was the R2D2 development model (Recursive, Reflective, Design, and Development). The poetry writing activity program was developed based on competencies, sub-competencies, and indicators. These activities were carried out on an ongoing basis. The results of the research validation were obtained from product testing activities. The validation activities were carried out by multimedia experts, practitioner experts, evaluation experts, technical experts, and course supervisors. The results of the validation indicate that the guidelines for writing poetry are appropriate for students' activity in writing eco-poetry, with several revisions being the basis for program improvement. Then, students whose scores are below the standard due to their difficulty in writing the right diction in critical thinking can take advantage of the ecocritical approach program that has been developed.

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Introduction

Based on Forest Watch Indonesia (FWI) data, deforestation in Indonesia is divided into 2 major regions, the eastern region [Sulawesi, Maluku, Papua] and the western/central region [Sumatra, Java, Kalimantan]. Deforestation in the eastern and western regions continues to grow every year. The average deforestation value in the eastern region is no higher than in the western region. In this area, there is a tropical rainforest that should be preserved. In 2018, there was damage to tropical forests of up to 120 thousand kilometers. Furthermore, in 2019, sources from Forest Watch Indonesia showed that 1.47 million hectares of forest were lost every year. Continuous industrial growth and urbanization have caused natural

damage [Lashari, 2015]. This incident did not only occur in Indonesia but also in various countries in other parts of the world.

Furthermore, the background for this development is the low ability of students to write eco-poetry. Observation results show that 80% of student scores are below the standard. Based on these events, there is a need for learning for the younger generation that can increase and foster their love for the universe, namely by teaching writing poetry with an ecocritical approach. The development of a poetry writing program using an ecocritical approach results from an adaptation of Anderson and Krathwohl's taxonomy of thinking [2017].

Corresponding author: Ira Fatmawati

Address: ^{1*,2,3,4}State University of Malang, Jln Semarang No.5. Sumber Sari, Malang, East Java, Indonesia.

E-mail: ^{1*}ira.fatmawati@trunojoyo.ac.id

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The developed poetry writing program contains poetry writing skills techniques with an ecocritical approach. The poetry writing program developed has 6 parts, namely 1] remembering skills, 2] understanding skills, 3] applying skills, 4] analyzing skills, 5] evaluating skills, and 6] creating skills. Poetry writing is not only a tool to express expression, but it is also valuable for teaching and learning activities [Mohammed, 2019].

Disastra [2004] said, "Creating and appreciating literary works is a high degree of an intellectual and emotional experience that can humanize human." Learning to write poetry is not separable from everyday life but these two things can control and improve each other. Nature and life are sources of inspiration in poetry writing activities. According to Fang-Yu Liao [2018], poetry is a text that contains experience and learning, which is poured by the poet using what is created [connotative language, symbols, figure of speech]. Wicaksono [2014] describes that one of the stages of writing poetry is ending. At the final stage, students need to get coaching to develop their ability to write poetry optimally. The form of coaching can be in the form of poetry writing techniques through mind mapping, with the direction of poetry writing themes that are close to meeting human needs. One of the purposes of writing poetry in this study was that students could think creatively and critically. The rationale for developing this poetry writing program is Anderson and Krathwohl's taxonomy of thinking, with an ecocritical approach. Poetry writing activity is a higher-order thinking activity with the following skills: 1] remembering skills, 2] understanding skills, 3] applying skills, 4] analyzing skills, 5] evaluating skills, and 6] creating skills. It is in line with the opinion of Eva Mayami [2021] that analytical, critical thinking is one of the higher-order thinking activities.

One of the characteristics of ecocritical texts is that it has a pastoral element. Specifically, pastoralism is a literary tradition of escapism from the city to the village that initially existed in ancient Alexandria and became a necessary form of poetry in Europe during the Renaissance. In general, the literature describes the village by contrasting it implicitly and explicitly with the city [Gifford, 1999]. Cities and villages, two things that can be used as sources of inspiration in writing eco-poetry. Cities are synonymous with towering buildings, congestion, pollution, and poor drainage. At the same time, villages are synonymous with rice fields, fields, cool

air, and unspoiled natural scenery. Even a poem can contain the contrast between the two.

Research conducted by Bernadetta [2017] on ecological poetry presents examples of writing poetry using an ecological approach [2017]. Meanwhile, research on the imagery in Abdul Salam HS' poetry collection, by Oktavianina, [2019], shows the structure of the poem without relating it to the ecological environment. Kangiden [2014] develops teaching materials for the appreciation of prose fiction based on multiculturalism. Further, Nurjannah [2019], develops creative writing teaching materials oriented to character values. Efendi [2018] investigates the development of teaching materials based on environmental wisdom. Lastly, Jingcheng Xu's study confirms that ecological wisdom is only a story. It can be seen in several Longfellow poems, which were analyzed with an ecocritical approach.

Observations were made in the creative writing class at Trunojoyo University, Madura. Observation results show that students taught to write poetry without using certain techniques caused confusion and various problems in writing poetry. The poetry writing learning was carried out outside the classroom with no specific instruction that helps students pour their ideas into poetry. Thus, the learning was less effective since the poetry writing covers the too expansive scope. It causes learning activities to be less effective because the results of writing poetry vary without a clear scope. The subsequent finding is that lecturers still dominate in delivering material [80%]. In the process of writing poetry, students should be allowed to reflect and take notes so that they can convey their ideas well [Asraf, 2018].

The initial observations show that students have a high interest in writing poetry [80%]. However, they have difficulty starting and developing a theme when writing poetry, even though it has been determined beforehand. Meanwhile, the most popular themes are from the surrounding nature [60%], personal experiences [30%], and romance [10%]. Poetry is written in Indonesian, while not all students use Indonesian as their first language. The observations show that 90% of students use regional languages in daily communication, so when they are going to express ideas in Indonesian, guidelines are needed. The result of writing from a second language [L2] is an exceptional thing [Fang, 2017].

This development research produced a product in the form of guidelines for poetry writing activities



with an ecocritical approach with the following specifications, poetry writing activities developed are adoption of Anderson and Krathwohl's taxonomy of thinking [2017], involving 1] remembering skills, 2] understanding skills, 3] applying skills, 4] analyzing skills, 5] evaluating skills, 6] creating skills. The eco-poetry writing activity is carried out continuously following the sequence because writing poetry is a complex activity.

Literature Review

Writing poetry results from creating high-level thinking processes, so it requires proper writing guidelines to write efficiently and follow learning objectives. Anderson and Krathwohl's taxonomy shows higher-order thinking processes ranging from 1] remembering skills, 2] understanding skills, 3] applying skills, 4] analyzing skills, 5] evaluating skills, and 6] creative skills [Anderson and Krathwohl, 2017]. Anderson's taxonomy of thinking is adapted and developed according to its indicators and sub-competencies.

Writing is a form of creativity that can produce a new work resulting from a thought. According to Nurgiantoro [2010] writing is the ability to express ideas to others. While creativity according to Roekhan [1991], is divided into 4 parts, namely 1] forming different behaviors in general, 2] the soul/mind of someone who wants to create something new, 3] a form of thinking that is complicated and tends to go against the flow, 4] results that provide novelty in terms of content and others. Endang [2004] states that in forming new ideas, there needs to be a process, namely fixation [consolidation] and formulation [planning]. The stages of writing, according to Tompkins [1994] or Donald Graves [in Cox, 1999], consist of the pre-writing stage, draft writing, revision, refinement, and publication.

Learning to write poetry in prospective Indonesian Language Teacher education is an act of adjustment to the 2013 curriculum in secondary schools to equip students with skills as prospective teachers of Indonesian Language and Literature in secondary schools. The purpose of learning literature in the 2013 curriculum is to prepare Indonesian people to have the ability to live as individuals and citizens who are faithful, productive, innovative, effective, and able to contribute to the life of society, nation, state, and world civilization [Depdikbud, 2016]. The basis of poetry writing activities in universities is the result

of the development of the 2013 curriculum [Depdikbud]. Mock [1998] defines writing poetry as an activity to express ideas, emotions, and experiences, or all three. Meanwhile, the purpose of learning to write poetry in universities is to provide students with knowledge about the understanding, concepts, methods, and processes of creative writing and to be able to describe what and how one finds ideas that are useful for the development of the natural environment.

In this study, the concept of poetry learning was also inspired by Mock [1998] in his book *you can write poetry*. Mock presupposes poetry writing activities as gardening activities [Mock, 1998]. Gardening here is meant to be a job that requires a process. There is nothing instant in the activity of writing poetry. Learning to write *green* in this study was based on the learning theory of Lev Vygotsky [1978]. Vygotsky states that when students learn, there is a zone of proximal development. Student learning development occurs in two stages, namely the actual developmental level and the potential development level. The zone of proximal development is between the development level [independent problem solving] and the potential development level [problem-solving that requires guidance or collaboration with capable peers [Fisher and Frey, 2010]. Poetry learning follows the objectives requires good collaboration between educators and students, between students and other students, in independent or guided class.

Writing poetry using an ecocritical approach is the result of developing an environment learning model. Environment learning is a learning model that prioritizes students' experience concerning the natural surroundings to easily understand the content of the material presented [Ali, 2010]. It shows that learning to write poetry is not just theorizing but also related to a sense of concern for the environment.

Ecocriticism is a critical theory in the latest approach to literature. There is a link between literature and ecology [Sukmawan, 2016]. Meanwhile, the eco-critical approach aims to show concern for literary works to their environment and to try to solve ecological problems. Ecocriticism has several other terms, namely, green studies, eco-poetics, green literature, and environmental literary criticism. Kerridge [1998] says that ecocriticism wants to find ideas or concepts that contain environmental representations. The characteristic of ecocriticism is an ecological crisis [Bertens, 2008], so this study



is also known as a critical approach. Ecocriticism is also inspired by the critical attitude of modern environmental movements. Greg Garrard traces the development of the movement. He explores related concepts of ecocriticism, namely pollution, wilderness, apocalypse, dwelling, animals, and earth. Sukmawan [2016] explains that in ecocriticism, six principles need to be considered, namely, 1] respect for nature, 2] moral responsibility for nature, 3] the principle of compassion. and caring for nature, 4] the principle of cosmic solidarity, 5] the principle of not harming nature [no harm], 6] the principle of living simply and in harmony with nature, 7] the principle of justice, 8] the principle of democracy, and 9] the principle of moral integrity.

The followings are examples of Indonesian writers who use nature as a source of inspiration, namely Dewi Lestari, Taufik Ismail, Zawawi D Imron. Their works are examples of the development of ecocritical texts. Hasanah [2013] asserts that Zawawi utilizes all the natural potential that surrounds him in all categories to create a figure of speech. Based on this statement, it can be stated that the vocabulary used in writing poetry contains metaphors related to the writer's perception of ecology and the environment. The number of literary works containing environmental insights shows that nature and literary works are two things with closeness and reciprocity [Sudikan, 2016]. It is also in line with the opinion of Merchant [1980] that there is a link between ecology, production, and awareness. Garrard [2004] states that ecocriticism can solve ecological problems broadly because literature functions as a medium for representing attitudes, views, and public responses to the surrounding environment.

Methodology

The research model used in this study was the R2D2 (Recursive, Reflective, Design, and Development) development model, as stated by Willis & Wright [2000]. The R2D2 model was the basis for thinking in this development research with several adjustments according to the research objectives. Adjustment means that some modifications were reduced, added or modified because they are adapted to the development goals [Tomlinson, 2004].

In the R2D2 model, there are three development focuses, namely, define focus, design and development focus, and dissemination focus [Willis, 1995]. The focus of development carried out in this

research was the focus of determination [define focus] and the focus of determining design and development [design and development].

The R2D2 research model had four principles, namely [1] recursion, [2] reflection, [3] nonlinearity, and [4] participatory. In the recursion stage, developers could make quick decisions and continue developing during the development process. Next, the reflection stage was where developers were allowed to reflect and think deeply about criticism, suggestions, and ideas during the development process. Then, Non-linear meant that developers were allowed to develop randomly or not in sequence and revise the product on an ongoing basis [Priyatni, 2011]. Participatory was the existence of a team of participants involved in the development process. The participants in this study were 30 students and 3 lecturers of the language and literature education study program.

One of the focuses of the development of the R2D2 model was the determination process. There were two determination activities, namely the determination of product specifications and a participatory team. The main activities in determining the design and development were 1] preparation and 2] development. At the preparatory stage, the activities were carried out to determine the blueprint for developing a poetry writing program with an eco-critical approach. In development activities, the activities were the development of poetry writing activity programs adjusted between competencies, sub-competencies, and indicators.

The following eco poetic writing program development activities enabled students to determine and develop poetry writing themes quickly. Poetry writing activities in the development of this teaching material involved 1] remembering skills, 2] understanding skills, 3] applying skills, 4] analyzing skills, 5] evaluating skills, and 6] creating skills [Anderson dan Krathwohl, 2017]. Theoretical concepts related to the six activities in writing poetry were obtained through library research activities. The development of the poetry writing activity program was followed by writing activities with an eco-critical approach.

The type of data in development research was qualitative data in the form of criticism, suggestions, and assessments from the team of participants [supervisors, students, lecturers, experts, and practitioners] during the development process. The data sources in this study were the



participatory team [lecturers, students, and practitioners].

The role of researchers in this research and development was as a critical instrument in data collection, analysis, and interpretation. Qualitative data were collected using auxiliary instruments in field notes, product review guides, and [closed] questionnaires. The data analysis used in this study was 1] data analysis from the application of product trials and 2] data analysis from experts. The implementation of data analysis was carried out sequentially. The data analysis used in this study involved 1] data analysis from the application of product trials, 2] data analysis from experts/practitioners, and 3] data analysis from experimental test results. The implementation of data analysis was carried out sequentially, starting from data analysis of product application trials, analysis from experts/practitioners, and then data analysis from experimental test results.

Analysis of the data obtained from the trial results was carried out on criticism and suggestions from potential users of the product. The data were grouped by domain that aligns with the background of the research problem, interprets the data, reflects on the data, and draws conclusions. At last, the obtained conclusions were used to improve the product.

Results

Activity Program Development

The activity of developing a poetry writing activity program was carried out with several activities, namely [1] determination of essential competencies, [2] determination of basic sub-competencies, [3] determination of indicators [4] determination of text. Competence is a skill that the learner must master. Sub-competencies are sub-skills that contain activities to master the material contained in the competencies. Indicators are behaviors that are used as measuring instruments for the achievement of competence. Determination of the text was done following predetermined criteria. The suitability of the text selection is essential because it must be following the primary purpose of writing poetry.

The product of this research was a poetry writing guideline which was the result of the development of six poetry writing program activities, involving 1] remembering skills, 2] understanding skills, 3] applying skills, 4] analyzing skills, 5] evaluating skills, and 6] creating skills. The writing activity is an activity that is carried out continuously.

The next activity was a literature review to study theoretical concepts. The results of the theoretical study are the descriptions and explanations that must be mastered by the learner and described in several sub-competencies. Then, from these competencies and sub-competencies, indicators were developed to see the success of the competencies and sub-competencies.

Table 1. The Blueprint of Poetry Writing Program Development

Competence	Sub-Competence	Indicator
1. Remembering Skill	1. Identifying problem	After reading the text, the reader determines the main problem contained in the text.
	2. Recalling	The reader tries to find new things from the problems contained in the text to make the right statement.
2. Understanding Skill	1. Interpreting	After reading the text carefully, the reader recognizes the essential points found.
	2. Predicting	Making a conclusion
	3. Explaining	Explaining the cause and effect of the events found.
3. Applying Skill	1. Implementing	Expressing ideas in writing
4. Analyzing Skill	1. Choosing	Sorting out important and unimportant items of information
	2. Integrating	Find the points of information obtained from the text so that it has a complete meaningful conclusion.
5. Evaluating Skill	2. Criticizing	Determine the discrepancy among the items of the event with the expected reality.
6. Creating Skill	1. Designing	Determine critical thinking patterns in written form
	2. Producing	Produce products in the form of poetry

The draft that had been prepared was then consulted with experts to get suggestions and improvements. After careful examination, the draft



was then used as a guide for the poetry writing program.

After determining the development blueprint, the next activity was determining the text used as reading material. The determination of the text was selected based on the criteria that had been made beforehand. The text in this development was significant because it was the basis for starting poetry writing activities.

The determination of the following text criteria was the result of a literature study and guidance from experts. The results of the discussion become material for improving the determination of text criteria. The learner has the potential that can be improved by utilizing the narration in the text [Scott, 2016].

Table 2. Text Determination Criteria

Criteria	Description
Usefulness of text	The selected text must contain information or messages that are useful for the reader, especially about inculcating good character and attitudes towards the surrounding environment.
Text Difficulty Level	The selected text has a low level of difficulty, uses popular vocabulary, with a choice of vocabulary in everyday language, so that the information conveyed is easy to understand.
Text Benefits	The selected text must have behavioral improvement benefits so that it can motivate to do better.
Text Clarity Level	Text is selected based on the complete level of clarity of information.
Text authenticity	The selected text is the original text without modification. There is only the inclusion of the source text.

The selected text must have benefits for the reader, so that reader write poetry to improve the relationship between humans and the natural environment. The existence of good examples of events and characters is expected to motivate readers to imitate their behavior and stay away from things that are not exemplified in the text.

The text's difficulty level is included in the easy category because the information conveyed uses popular language. In addition to using popular vocabulary, the information content is also

complete [5W + 1H], involving what [what], where [where], who [who], why [why], + how [how], making it easier for readers to understand the contents.

The quoted text is the original text without any changes in form or content. The source of the text is listed as accompanying information. The original text is expected to be able to foster the creativity of the reader in the form of criticism and suggestions for improvement, especially in terms of content.

Table 3. The Developed Products

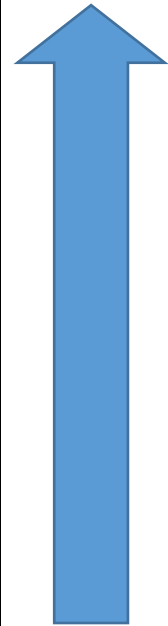
Poetry Writing Activity Program	
Poetry Writing Activities program	Ecocritical Approach
Activity 1: remembering skills	remembering skills: theory and practice
Activity 2: understanding skills	understanding skills: theory and practice
Activity 3: applying skills	applying skills: theory and practice
Activity 4: analyzing skills	analytical skills: theory and practice
Activity 5: evaluating skills	evaluating skills: theory and practice
Activity 6: creating skills	creating skills: theory and practice
Note	
Activity	Theory: contains explanations of definitions, examples, and steps for each activity.
It is an activity in the process of writing green poetry.	Practice: writing activities according to the focus of the problem contained in the text.

After making a blueprint that was used as a guide in writing poetry, the next step was to determine the theory and activities carried out in each activity. Each activity is carried out ongoing to help learners achieve higher skill levels [Nunan, 1999]. Poetry writing activities are developed based on an ecocritical approach. The practice of writing eco-poetry accompanies a theory, containing definitions, examples, and steps for writing poetry. Meanwhile, the practice is an activity to write poetry following the evaluation results of the specified text. The combination of literature and ecology is expected to solve the problem of the ecological crisis that occurred [Jingcheng Xu, 2012].



Table 4. Six Poetry Writing Activities

6. Creating skills
At this stage, students were invited to formulate and produce a product in the form of poetry in accordance with the resulting evaluation.
5. Evaluating skills
At this stage, students were invited to examine and criticize the results of the analysis that did not match the content of the text with the reality they had seen/experienced.
4. Analyzing skills
At this stage, students were invited to distinguish between important and unimportant information, organize the information obtained, determine points of view, opinions, and goals.
3. Applying skills
At this stage, students were invited to arrange the items of information found.
2. Understanding skills
At this stage, students were invited to observe and interpret the meaning of the available texts.
1. Remembering skills
At this stage, students were invited to recall experiences that have been seen/experienced related to events that occur in the natural environment.



According to Table 4, poetry writing activities begin with the most basic thinking to the higher-order thinking step, namely creating. In activity 1, students recalled natural events that had been seen or experienced. This recalling activity helps bring up information that has been stored in the learner's memory [Gruart, 2014]. Natural recalled events can be in the form of admiration for what they saw or feeling dissatisfied because of the damage to nature. It was done to be compared with the contents of the text, which contained natural events. Learning based on experience combined with creativity is very important for maximum results [Habib, 2021].

In activity 2, students were invited to observe and interpret the meaning of the available texts. Learners did not only read but interpreted the meaning of the events contained in the text. Determination of meaning in the text was done by finding the information conveyed by the author to the reader. In activity 3, students were invited to arrange the items of information found. Important information was obtained from the activity of interpreting the text. In activity 4, students were invited to distinguish between important and unimportant information, organize the information obtained, determine points of view, opinions, and goals. In activity 5, students were invited to examine and criticize the results of the information contained in the text that was not under the reality that had been seen/experienced. A collection of information, events, visual signs such as punctuation, lines, circles was a source of

inspiration for writing poetry [Leigh, 2017]. In activity 6, they pour criticism [ecology] in the form of poetry by using the right choice of words because critical learning [ecology] helps describe and assess the learner's narrative of the environment [Stokrocki, 2010].

The Results of Product Trial

After product users and experts conducted product trials in learning activities, they provided general responses to product results. The results of the study from product users and experts are presented in table 5.

Table 5. Product review

No	Data source	General Feedback
1	Expert [A]	Gaining insight after using this product.
2	Expert [B]	Writing poetry becomes easy and rewarding. For the environment, you only need patience in doing it.
3	Expert [C]	This program is very good for developing critical thinking skills.
4	Product User [A]	This program is very good for practicing writing skills combined with critical patterns from students, so that they can be used in social life.
5	Product User [B]	The program is very good for eco-poetry writing activities, but the steps are long and you have to be patient in delivering the material in learning activities.
6	Product User [C]	This program is suitable to be used in college as a guide for writing eco-poetry.



From the results of the product review, it can be concluded that the eco-poetry writing guidelines with an eco-poetry approach are generally appropriate to be used in universities. Eco-poetry writing guidelines can simplify the process of finding and developing creative ideas. The product's weakness is that it has a long stage in eco-poetry writing activities, so it requires accuracy and patience for both students and lecturers.

Responses indicate that many new insights have been gained from the guidelines. Writing poetry is fun because it is not only in imagination but is directly related to natural life.

By using the guidelines for writing poetry, students can hone their writing skills and are also able to think critically about the state of the natural environment and the policies that accompany it. Eco-poetry has been written by many poets, which now can also be written by students.

The Trial Results from Material Experts [AM] and Practitioners [PM]

After a team of experts and practitioners conducted product trials, they provided feedback, criticism, and suggestions for product improvement. The following table is an explanation from a team of experts and practitioners.

Table 6. General Responses of Multimedia Experts and Practitioners

No	Data source	General Feedback
1	Multimedia Expert	The resulting product is good and feasible to use because it meets the requirements of ease and effectiveness, and it is easy to understand.
2	Multimedia Practitioner	Good product, cheap, and easy to use.

These general responses show that product development packaged in ebooks can be accessed anywhere because products are provided online and offline. The features in the ebook were made simple so that they are easy to operate. The display also looks attractive because it is accompanied by photos/images that support the content of the text, and the results of the development can add users' insight.

The Result of Experimental Test

Experimental tests were conducted by literature learning experts [AP], Indonesian language learning evaluation experts [AE], learning technology

experts [AT], and 1 creative writing lecturer [PM]. The instrument was analyzed using open-ended questions. The form of the study was carried out in general and in specific. Next, they delivered a general study containing responses related to the feasibility and uniqueness of the product in terms of content, while the special study contained comments, criticisms, or suggestions related to important points on the product.

General Study Results

The initial activities carried out by experts and practitioners were reading the product in print and e-books form. Then, they gave a general review of the product content. Expert reviews and practitioners can be seen in Table 7.

Table 7. General Study Results

No	Data source	Response
1	Expert Practitioner	In general, this program facilitates practice writing poetry for readers. However, the details of the material are incomplete, so that readers do not fully understand the presented material.
2	Evaluation Expert	This eco-poetry writing activity program is suitable to be used to develop poetry writing skills.
3	Technician Expert	This activity program has a clear flow, but a few points need to be added, namely work instructions
4	Lecturer	Insights and enthusiasm for writing poetry will increase after reading this program. Writing eco-poetry is a very challenging thing.

From the table, it can be concluded that the eco-poetry writing activity program is categorized as suitable for use. The stated product weaknesses were the basis for product revisions. The required elements to be added in product revisions are the completeness of materials and work instructions.

The Results of Special Study

A special study of the product was carried out on two aspects, namely the study of the contents of the eco-poetry writing activity program and the study of the contents of the eco-critical approach program.



A Special Study on the Content of the Eco-Poetry Writing Activity Program

The instrument used in this activity is in the form of open-ended questions. These questions are related to the contents of the eco-poetry writing activity

program, namely 1) work instructions, 2) accuracy of questions, 3) accuracy of questions to practice critical thinking, and 4) accuracy of answer choices. The following is the result of the review of the program content.

Table 8. Results of the Study of Program Content

No	Data source	Aspect	Result
1	Expert Practitioner	Clarity of work instructions	Instructions should use clear, unambiguous language.
		The accuracy of the questions at each level of the eco-poetry writing activity	The questions used are very good for recalling activities and text understanding activities.
		The accuracy of questions to practice critical thinking	The focus of the question is appropriate in stimulating critical thinking activities.
			Some questions are still theoretical.
		Clarity of the question asked	The focus of the question is clear and easy to answer.
		Answer choice accuracy	The answer choices differ, making it easier to determine the correct answer.
2	Evaluation Expert	Clarity of work instructions	Very easy and clear to understand
		The accuracy of the questions at each level of the eco-poetry writing activity	Questions are according to theory
		The accuracy of questions to practice critical thinking	Clear and precise
		Clarity of the question asked	Questions are clear and easy to answer
		Answer choice accuracy	Easy to understand the difference between right and wrong answers.
		The accuracy of the answer key and explanation	Clear
3	Technician Expert	Clarity of work instructions	It is clear
		The accuracy of the questions at each level of the eco-poetry writing activity	It is precise
		The accuracy of questions to practice critical thinking	The question is correct.
		Clarity of the question asked	Clear questions.
		Answer choice accuracy	The meaning of the answer is similar so it is confusing to choose
		The accuracy of the answer key and explanation	Clear
4	Lecturer	Clarity of work instructions	The instructions are clear
		The accuracy of the questions at each level of the eco-poetry writing activity	Easy to understand questions at every level.
		The accuracy of questions to practice critical thinking	Clear questions and can train critical thinking.
		Clarity of the question asked	Clear
		Answer choice accuracy	Clear
		The accuracy of the answer key and explanation	Clear



Table 8 signifies that 1] the form of work instructions is clear even though there is input on the language chosen that should be simple, easy to understand, and not ambiguous, 2] the questions submitted are clear and represent the presented theory, 3] the questions posed can stimulate critical thinking, 4] the questions asked are exposed, 5] the answer choices are clear even though some options are confusing because they have the same meaning, and 6] the answer keys and their answers are clear and can be used properly.

Special Review of the Program Contents of the Ecocritical Approach

The study of the eco-poetry writing activity program contents was carried out by 1 expert in learning literature, 1 expert in evaluating Indonesian language learning, 1 expert in learning technology, and 1 lecturer in charge of creative writing courses. The instrument used in this development was in the form of open-ended questions. These questions are related to the program's content regarding the accuracy of using an ecocritical approach, namely 1] theoretical concepts and explanations of technical terms, 2] accuracy of questions, 3] Clarity of question formulation to train critical thinking, 4] accuracy of answer choices. The followings are the results of the study of the ecocritical approach activity program.

Table 9. The Study Results of the Ecocritical Approach Activity Program

No	Data source	Aspect	Result
1	Expert Practitioner	Theoretical concepts and explanations of technical terms	The theory and technical terms are clear and easy to understand
		Question accuracy	The focus of the question is precise in stimulating critical thinking activities.
		Clarity of the question asked	The questions asked are clear, so they are easy to answer.
		Answer choice accuracy	Clear answer
		The accuracy of the answer key and explanation	Appropriate
2	Evaluation Expert	Theoretical concepts and explanations of technical terms	easy and clear to understand
		Question accuracy	Questions according to theory
		The accuracy of questions to practice critical thinking	Clear and precise
		Clarity of the question asked	Questions are clear and easy to answer
		Answer choice accuracy	Easy to understand the difference between right and wrong answers.
		The accuracy of the answer key and explanation	Clear
3	Technician Expert	Theoretical concepts and explanations of technical terms	Precise
		Question accuracy	Precise
		The accuracy of questions to practice critical thinking	Precise
		Clarity of the question asked	Clear question.
		Answer choice accuracy	The meaning of the answer is similar so it is confusing to choose
		The accuracy of the answer key and explanation	Clear
4	Lecturer	Theoretical concepts and explanations of technical terms	The theory is clear. A few technical terms are still difficult to understand because examples do not accompany them.
		Question accuracy	Easy to understand the question
		The accuracy of questions to practice critical thinking	Clear questions and can train critical thinking.
		Clarity of the question asked	Clear
		Answer choice accuracy	Clear
		The accuracy of the answer key and explanation	It is precise between the answer and the explanation.



The obtained data presented in table 9 show that 1] theoretical concepts and explanations of technical terms are clear even though there is input on the language chosen to explain technical terms is still difficult to understand, 2] the questions submitted are clear, 3] the questions submitted can stimulate critical thinking, 4] the question asked is exposed, 5] the answer choices are clear 6] the answer key and its answers are clear and suitable for use.

Discussion

The results of research and development are in the form of guidelines for eco-poetry writing activities. This guide can be used mainly for students taking creative writing courses. In general, this guide can also be used by high school students because there is also material to write poetry in high school. The form of poetry produced using this guide is in the form of eco-poetry. The results of this study are different from previous studies. In this study, there are six steps to writing poetry that must be followed, using supporting texts that contain the surrounding natural conditions. The reader must be able to think critically after reading the text. Starting from a critical mindset that eco-poetry is produced. The disadvantage of this guideline is that it takes a long time to get written results because reading, remembering, and criticizing activities are carried out before writing eco-poetry. When reading the text and relating it to experiences that have been experienced, students sometimes have never experienced anything similar to the events in the text, so intensive guidance from the teacher is needed. Meanwhile, the relevant previous research is limited to analyzing poetry with an ecocritical approach. The other researches are also limited to analyzing eco-poetry, without any process to produce eco-poetry.

Research conducted by Bernadetta [2007] on children's green literature and learning present examples of writing poetry using an ecological approach. Meanwhile, studies on poetry entitled Citraan in the Collection of Abdul Salam HS Malaikan Waringin Poems, suggest visualizations in Abdul Salam HS's poetry collection [Oktaviantina, 2019]. Besides, the study results look at the structure of the poem without relating it to the ecological environment. A study from Kangiden [2014] investigates teaching materials development of multicultural-based prose fiction appreciation for students of the Indonesian language education study program. Further, Nurjannah [2019] develops creative writing

teaching materials oriented towards character values. Meanwhile, Efendi [2018], examines the development of teaching materials based on environmental wisdom. Lastly, Jingcheng Xu, reveals the existence of ecological wisdom that is only a story. The five studies are research on the development and learning of prose fiction with various approaches. Meanwhile, the sixth research is research on the results of the analysis of poetry using ecocritical theory.

Students who score below the standard caused by difficulties in determining the right diction can participate in a poetry writing activity program with an ecocritical approach. Students practice critical thinking by answering questions after reading the text in this program. The result of the answer is a diction that can be used to compose eco-poetry.

Conclusion

The poetry writing activity program developed using an eco-critical approach can guide determining and developing themes for eco-poetry writing activities. The poetry writing program developed involves 1] remembering skills, 2] understanding skills, 3] applying skills, 4] analyzing skills, 5] evaluating skills, and 6] creating skills.

Combining personal experience with important information in the text is the first step to making ecological criticism. The text in this activity contains discourse about the natural environment in language that is easy to understand, useful, and original without composition. Writing eco-poetry can be done based on important information in the text along with its ecological critique. The stimulus can be in the form of activities that begin with activities to recall events related to events in the text read by answering questions in the text that has been provided.

The obtained data indicate that it is easy to find and develop ideas in eco-poetry writing activities. Learners do not only practice writing poetry but are also able to think critically by giving the right stimulus. The stimulus can be in the form of activities that begin with activities to recall events related to events in the text read, producing eco-poetry as expected.

Recommendations

This research is recommended for parties interested in writing poetry, either for students, lecturers, or the next developer. Students can use



the results of this research in learning activities, namely, as a guide for writing green poetry. The results of this study are also expected to provide solutions to the difficulties of critical and creative thinking in determining and developing ideas faced by students. Students are expected to grow their potential independently, think critically, creatively, and innovatively in the following writing activity. For lecturers, the results of this study can be used as a reference source of the primary teaching material in poetry writing courses. The study results are also expected to increase the knowledge of lecturers in the field of eco-poetry writing. The results of this study can also be adapted either partially or entirely to overcome the difficulties of teaching materials in universities.

Limitations

This study's limitation is that it is long-duration to get ideal results because it must continue to be repaired repeatedly to get maximum results. The following limitation is the need for examples in videos that cannot be included in the research results. The next is the limited material developed. This study only.

Authorship Contribution Statement

Ira Fatmawati: Conceptualization, Design, Analysis.
Djoko Saryono: Supervision Reviewing. Maryaeni Supervisor, Reviewing. Roekhan: Supervisor, Reviewing.

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