



## Indonesian Language Learning Based on Ecological Literacy in Improving Students Language Skills

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### ABSTRACT

**Purpose of the study:** This study investigates the integration of a contextual learning model based on ecological literacy in Indonesian language learning within vocational high schools. The aim is to enhance students' language skills and foster their active participation in learning Indonesian through contextual and relevant experiences.

**Methodology:** The study employs a qualitative descriptive approach, analyzing classroom learning processes. Data sources include speech, actions, and supporting documents collected during the research. Purposive sampling was used to select teachers and students from class X of Vocational High Schools 1 Sawit Boyolali as participants. Research instruments consisted of observation records, interview lists, and documentation. Method triangulation was applied to ensure validity, incorporating observations, interviews, and analysis of classroom learning processes. Data were analyzed descriptively to present detailed findings and draw conclusions.

**Main Findings:** The findings reveal significant improvements in students' language skills through ecological literacy-based Indonesian learning. The contextual learning model aligns with students' vocational expertise, enabling them to engage deeply with language in practical and meaningful contexts. This approach not only enhances reading and comprehension skills but also builds students' confidence in expressing ideas verbally and in writing.

**Novelty/Originality of this study:** This study introduces a novel approach by integrating ecological literacy into Indonesian language education, addressing linguistic and environmental awareness. It provides new insights into how contextual learning tailored to students' vocational fields can enrich language skills, bridging academic content with real-world applications. This research offers a valuable model for innovative and interdisciplinary education.

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## 1. INTRODUCTION

In civilization, language is considered very important. Language is used as a communication tool that supports the process of disseminating information. More broadly, language is considered the main supporter in understanding science more openly [1]. Learning a language can be considered learning how to communicate. Therefore, language is considered the main tool that supports life. Language is something that is never separated from everyday life. Through language activities, the activity of conveying information will be carried out [2]. In language activities, there are four skills that must be mastered by individuals. According to Targian, language

skills (language arts, language skills) include four aspects, namely listening skills, reading skills, writing skills, and speaking skills [3]. These four language skills cannot be separated and are related to each other. In the learning process, these four skills have a mutually supportive relationship to understand information through mastery of language skills. This is also related to human dynamic activities. The higher the level of language proficiency of a person, the better the use of language in communication [4].

Mastery of language skills is not only the responsibility of teachers as professional educators, but also of the entire language community. Mastery of these language skills can be delivered in education. In line with this, education is seen as a strategic means that can elevate the dignity of a nation [5]. Through experience-based activities to obtain facts, skills can be mastered and used as needed. In addition, the quality of the relationship and interaction that occurs between teachers and students also has a significant impact on the effectiveness of the education system [6]. The process of receiving language skills is also inseparable from the role of teachers in delivering learning. Professional teachers must be able to master skills that are in accordance with teacher competency standards. One of the competencies that teachers must master is pedagogical skills. According to Hoogveld & Sassen, pedagogy is a science that studies the problems of guiding and directing students so that they are trained to be independent in completing their life tasks [7]. With this, teachers must be able to master this standard in order to create students who are able to survive in various situations.

Through the skills taught by teachers, although basically students will understand and begin to learn language skills. However, the facts on the ground are slightly different. There are still many students who have not mastered language skills, so this refers to the teacher's competency standards which are not yet optimal. This deficiency refers to learning in the classroom, students still have a low understanding of information and make themselves individuals who are not open to language. Therefore, the role of education and teachers in efforts to improve this mastery needs to be carried out. By providing language learning that meets educational quality standards, mastery of language skills will be easily applied in the educational environment. The quality of education will affect whether an education is good or not [8]. Of course, this is not easy, but if it continues to be trained and taught intensively, mastery of language skills will be accepted by students. In addition, the choice of learning model is also a significant influence in achieving this goal. In an era of ever-changing and developing curriculum, varied learning models have begun to emerge to fill the creative and innovative lines of educational life.

A model is an abstraction of reality; a simplified representation of some real-world phenomena. This definition states that a model is a representation of several phenomena that exist in the real world. A learning model is a component in planning or preparing devices, media, and evaluation processes in the learning process. The selection of a learning model can be done with various considerations. This is because an effective learning model is very helpful in the learning process so that learning objectives are more easily achieved [9]. In the learning process, teachers can choose a learning model that suits the characteristics of the material and students. Because students have various backgrounds, abilities, learning styles, and personalities that require individual attention, teachers must be able to navigate the differences that exist by creating an inclusive learning environment that supports development [10]. In line with this, the selection of a learning model is carried out as a step to overcome the error in selecting a model. Concept learning tends to be abstract and with lecture methods, so that academic concepts are less or difficult to understand [11]. Therefore, in 21st century education, teachers are required to master 4C-based learning (Communication, Creativity, Critical Thinking, and Collaboration) to achieve the right learning objectives.

In an era marked by global challenges, the selection of learning models is important and is used to strengthen students' understanding so that it cannot be underestimated. If the delivery of material by the teacher is not good, the meaning of a material cannot be received properly [12]. The selection of a problem-based learning model is not only an absolute thing, but requires integration between other skills in developing a learning model. One learning model that can be integrated with other models is the application of Ecological Literacy or often called Environmental Literacy. The application of the Environmental Literacy learning model marks an innovative step in increasing environmental knowledge and awareness [13]. With this understanding, the role of ecological literacy is not only related to language skills but also to the role of students in preserving and protecting the surrounding environment. From an educational perspective, ecological intelligence has an important role in achieving educational goals [14]. Therefore, through the educational process, it is hoped that it can help every student as a member of society to be aware and sensitive to environmental problems [15]. The concept of literacy in language refers to individual language skills, both reading, understanding, interpreting, and conveying information in writing and orally in various contexts. In general, literacy includes several areas of skills that are combined into one to facilitate the communication process. In the process of implementing literacy, various fields of science or knowledge are needed that are relevant to the topic being discussed. This refers to interdisciplinary learning.

One of them is the topic of literacy is ecological literacy. Ecological literacy refers to an individual's ability to apply language skills, both in listening, reading, writing, and speaking skills to participate in interpreting scientific information related to environmental problems. In this case, human interaction in the

context of socio-cultural life is certainly inseparable from the role of the environment, both biotic and abiotic [16]. Therefore, ecological literacy activities are important to be implemented in learning, as an initial step to develop awareness of actions in maintaining and preserving the surrounding environment. Efforts to improve students' understanding of ecological literacy can be done through various activities. One of them is in classroom learning activities. This is because the level that can be most implemented in learning is the learning model [17]. In line with this, instilling attitudes and behaviors to care for the environment needs to be integrated into Indonesian language learning [18]. Through learning activities, teachers can integrate ecological literacy topics in delivering learning materials. The goal is that students can easily understand by being directly involved through discussion activities that deepen understanding. In addition, direct practice also increases students' knowledge. The practices carried out by students must be relevant to the field in order to apply knowledge directly. In addition, student activity in class is also the main point of implementing ecological literacy in the learning process in the classroom.

For the sake of the sustainability of life, new thinking is needed where humans and the environment are positioned wisely [19]. One of the most basic things is through the learning process. The process of learning Indonesian with ecological literacy can be done by collaborating between individuals. This is done to increase understanding between individuals to share and collaborate in designing and delivering materials that help raise awareness of the importance of environmental sustainability. In addition, collaborating is not only about making decisions based on science, but also to convey this important message effectively to the intended audience [20]. With these facts, the learning process through ecological literacy can be applied to compete to create an environment that is maintained and sustainable in the future.

With this assumption, this study is important to explain the implementation of ecological literacy in Indonesian language learning in schools, especially for vocational high school students. Researchers implement Ecological Literacy on the topic of Indonesian language learning. The assessment of the learning process is carried out by creating comfortable classroom conditions and observing the surrounding nature to be studied as language skills learning based on the surrounding environment. The development of this learning can also be called contextual learning based on ecological literacy. Through this activity, it is hoped that students will be able to understand Indonesian language learning based on ecological literacy so that the knowledge gained can be implemented in taking positive actions related to the environment. Furthermore, regarding ecological literacy-based learning, teachers have implemented it effectively. However, there has been no attempt to integrate it into classroom learning. Ecological literacy activities are only carried out as co-curricular activities. Therefore, ecological literacy-based learning activities are considered contextual to provide examples and real actions to students. The accommodation provided is also able to attract learning experiences and provide opportunities for students to gain experience related to meaningful language events.

This innovation is based on several previous studies related to learning models. The research was conducted by Pitoyo, which examines the improvement of language skills using the brain learning model [21]. The selection of the Brain learning model in Productive Language Skills learning is based on a number of reasons, namely in the National Standards-Based Curriculum of the Directorate General of Higher Education (SNDIKTI) which refers to the Indonesian National Qualification Framework (KKN) it is explained that learning in higher education must be interactive, holistic, integrative, scientific, contextual, thematic, effective, collaborative, and student-centered. In this case, researchers have something new related to the integration of learning models using one of the literacies related to the environment contextually.

The second study was conducted by Farahiba et al, which states that the characteristics of eco-literacy in Indonesian language learning prioritize learning that focuses on the environment [22]. The integration of eco-literacy in Indonesian language learning aims to create environmentally aware students. Eco-literacy is positioned as a theme or content that colors the substance of learning. In this case, the researcher is in line with the research, but there is something new in the learning process, namely contextual according to the majors of the students who are the objects of research. The selection of contextual or local wisdom-based Indonesian language learning is thought to help improve literacy skills and preserve culture among students [23].

The next scientific paper by Isnanda & Rinaldi, which states that there needs to be a planned and systematic effort through the world of education to strengthen the instillation of environmental awareness in students [24]. One of the fields of science or subjects that plays an important role in instilling values of caring for the environment is Indonesian language and literature. The research conducted has differences in terms of research objects, namely vocational high school students who are studying Indonesian, so that maximum results are expected to realize Indonesian language learning based on ecological literacy in improving language skills.

Further research was conducted by Suryonegoro, Wuryastuti, & Dewi, which examines the STEAM inquiry model of social complexity based on mathematical activities in virtual reality with Javanese cultural nuances is highly recommended for implementation [25]. This model allows the development of critical thinking skills from various perspectives. The similarity of the research is in contextual nuanced learning but with different objects and in different subjects, so that the right results are expected to realize the improvement of language skills using an environmental-based learning model or ecological literacy.

Based on previous research that has been carried out and facts in the field regarding Indonesian language learning, there are similarities in improving language skills in students. These similarities include the use of the same learning model. Researchers use novelty in the aspect of an innovative approach to ecological literacy-based learning so that students are expected to be able to gain direct experience from the surrounding environment. In addition, Indonesian language learning activities based on ecological literacy are intended to provide students with a contextual picture of the surrounding environment in an effort to improve language skills to realize 21st century educational innovation.

## 2. RESEARCH METHOD

Research constitutes an essential aspect of knowledge development and plays a significant role in advancing scientific understanding [26]. As an important part, research must use the right and accurate flow and selection of research methodology. This study adopts a qualitative research approach, which aims to describe and analyze phenomena, attitudes, events, beliefs, perceptions, and social activities both at the individual and group levels [27]. In line with this, Sugiyono, states that descriptive research is used to research in objective, natural conditions, with the researcher serving as the principal instrument for data collection and analysis. Qualitative descriptive analysis involves examining, describing, and summarizing various situations and conditions based on data collected through interviews, observations, and classroom activities. The sampling technique used is purposive sampling, which targets certain individuals who match the characteristics of the research [28]. The objects of research are teachers and students in the Indonesian language learning process in class X of Vocational high school 1 Sawit Boyolali. The data sources in this study are speech, actions, and supporting data in the form of documents during the study. The research instruments are in the form of interview lists and research observation results. The validity test technique for the validity of the data in this study uses method triangulation through observation activities, interviews, and the learning process in the classroom. Data analysis is carried out by describing the findings through several processes, namely data collection, data identification, data grouping, and interpreting the data findings in the form of narratives or more in-depth and detailed descriptions.

## 3. RESULTS AND DISCUSSION

This study focuses on the implementation of ecological literacy in the Indonesian language learning curriculum for tenth-grade students at Vocational high school 1 Sawit, Boyolali. The data for this study were collected through observations of the learning process and interviews with Indonesian language teachers and tenth-grade students engaged in ecological literacy-based activities.

### 3.1 Indonesian Language Learning in Vocational High School

Learning is the process of conveying knowledge or science from teachers to students in the formal realm. In line with this Samala et al, stated that learning is intended to activate, support, and maintain internal processes in mastering science [30]. With the learning process in schools, students are expected to be able to master skills in certain fields of science according to learning objectives. There are various fields of pure and vocational sciences studied at Vocational high school 1 Sawit, one of which is Indonesian. In learning Indonesian, students are required to be able to master basic language skills, namely the skills of listening to topics, reading information, writing information, and conveying information orally or in writing. Mastery of these skills cannot be separated from the role of teachers in choosing a learning model that is appropriate to student characteristics. In addition, the characters in learning that must be considered are students' interest in learning, responsibility, independence, concern, and high commitment in carrying out learning activities.

The learning model used by Mrs. N as an Indonesian language teacher at a Vocational High School is a lecture interspersed with one project during one semester of effective learning. Students are invited to implement learning materials into group activities that produce products to be assessed. Of course, this activity is a variation to increase student interest. In line with this, research conducted by Yusikah & Turdjai, that the project model interspersed can be applied to other learning in order to provide learning variations and is also expected to have a positive impact on improving student learning outcomes [31].

In contrast to Mrs. SU who implemented learning using a lecture model. The teacher occasionally asked questions to provoke students to express their opinions. This activity is also a real effort to train students' courage in expressing their opinions. Through these activities, students have determination and increased critical thinking so that they are able to hone their skills. In line with this, research conducted by Perdana et al, through an active role in classroom learning, an idea or concept will be born so that students have broader knowledge about the knowledge gained [32]. In addition, this learning model is known as an open-ended learning model. Which means the learning activity process in which there are goals and desires of individuals/students to achieve learning activities openly [33].

In addition to this learning model, teachers also provide structured assignments that are given to be done individually. This is intended for teachers to train students' abilities in completing tasks independently. Giving assignments individually is one method used by educators when giving children work to achieve a certain development activity goal [34]. By doing the tasks given, it is hoped that there will be a more positive change in children's behavior in accordance with their development goals.

Based on the results of observations that have been carried out on teachers, researchers conducted method triangulation by interviewing NF class X Pharmaceutical Technology 1 students who stated that Indonesian language teachers use individual and group approaches. However, in delivering the material, it still feels less interesting and tends to make them bored. He stated that learning activities in the classroom have not touched on the realm of environmental-based learning. Teachers only explain material from books without providing real examples that are around them. In addition, learning activities that are not varied make it difficult for students to carry out co-curricular activities. Students feel that they do not have sufficient knowledge to carry out these activities. Therefore, in an effort to improve the quality of learning, researchers apply an ecological literacy-based learning model in schools to support students' abilities in maintaining and preserving the environment. With this opinion, researchers conclude that Indonesian language learning in Vocational High Schools has not touched on the contextual realm and does not include environmental literacy elements at all. This is an opportunity for researchers to conduct further research on ecological literacy-based learning which is expected to improve students' language skills. Learning that includes ecological science allows for increased understanding regarding the importance of protecting the environment. Not only that, but this learning process also teaches students to understand science from a broader perspective [35].

### 3.2 Ecological Literacy in Vocational High School

Ecological literacy in Indonesian language subjects is basically very necessary at various levels of education, especially in vocational high schools. According to Mrs. N as a class X Indonesian language teacher at Vocational high school, ecological literacy not only teaches students to be literate but also about attitudes in environmental conservation. The same thing was also expressed by Mrs. SU who is also an Indonesian language teacher at the school, that ecological literacy can be integrated with Indonesian language learning in class and outside the classroom as a form of teaching students about love for the environment. Although this has been conveyed clearly, the implementation of ecological literacy that is integrated into classroom learning has not been implemented at all. Indonesian language teachers are burdened with the responsibility to organize students in ecological literacy activities in co-curricular activities only. The problem that often arises is that students do not have a basis in carrying out ecological literacy activities. According to Mr. M as the vice principal for curriculum, the learning that is carried out is still separate between classroom activities and co-curricular activities, including Indonesian language learning.

This causes problems for students in accepting and understanding the basis of ecological literacy activities. Not only that, the perceptions held by teachers at the school still tend to be inappropriate. Teachers still understand that literacy is only about reading and summarizing activities. In fact, literacy is an activity related to language skills, both reading, listening, writing, and speaking skills that are integrated with each other. However, the teacher's method of making literacy activities a success is considered effective. Literacy activities are not only carried out through reading activities, but are also presented by figures or practitioners directly to provide practical knowledge to students. However, only students who are taught by certain teachers participate in these activities. This fact is evidence that literacy activities are not evenly distributed at Vocational high school 1 Sawit Boyolali.

Regarding this statement, the researcher conducted observations during several meetings to see the facts in the field. The researcher conducted observations on literacy activities, Pancasila character education, and public lecture activities. The description of the observation results stated that the facts in the field were that these activities were still poorly absorbed. Only a few students participated in these activities. McBride et al, emphasize that ecological literacy has scientific significance, enhancing knowledge and logical reasoning to identify causal relationships in socio-environmental systems, thereby supporting informed decision-making [36].

In addition, differences in perception between teachers are also concrete evidence of the sustainability of literacy activities. Especially in ecological literacy activities which are only carried out by a few students and teachers every morning. These data are in line with research conducted by Utaya et al, teacher skills are needed to improve learning outcomes [37]. Teachers' skills in using various methods, utilizing various learning media, creating a conducive classroom climate can support success in the learning process.

### 3.3 Improving of Language Skills of Student in Vocational High School

Language skills are basic skills in mastering a language. This skill is an important thing in learning Indonesian, so both educators and students must have it [38]. Based on the results of observations and learning activities in the classroom, data was obtained that the level of mastery of language skills of class X students of Vocational high school 1 Sawit Boyolali was still lacking. This was evidenced during the question and answer

process in Indonesian language learning activities. Students still have difficulty receiving and conveying information.

With these difficulties, the researcher chose an ecological literacy-based learning model as an innovative solution to overcome these problems. Through ecological literacy-based learning, students are expected to be able to improve their language skills. This is because ecological literacy learning is not only related to the environment, but also related to how the environment is treated through language. So it can be said that ecological literacy activities will be able to support all elements of language skills. In addition, the use of various models can allow students to learn optimally and be adjusted to the learning material [39]. In this case, it is adjusted between language skills and ecological literacy.

### **3.4 Ecological Literacy-Based Indonesian Language Learning in Improving Students Language Skill in Vocational High School**

Empirical evidence obtained in field observations shows that the mastery of language skills of class X students of Vocational high school 1 Sawit Boyolali is still lacking. To overcome the problem of students' lack of language skills, researchers adopted an innovative learning process. According to Widiyanto, innovative learning process can learn to create a fun, dynamic, enthusiastic, and challenging learning atmosphere [40]. Therefore, the selection of this model can increase students' enthusiasm for learning.

The selection of the ecological literacy approach is considered to have a positive impact towards contextual. This learning combines language skills, namely reading, listening, writing, and speaking which are integrated with ecological literacy. The components in ecological literacy greatly support students in improving their language skills. In addition, ecological literacy is also able to provide significant encouragement to the Indonesian language learning process. This learning encourages students to be more active in reading and understanding contextually so as to form the courage to convey information both verbally and in writing through the learning process. In line with this, research conducted by Syukron, ecoliteracy has positive learning objectives and pedagogical aspects to be applied in Indonesian language learning in schools [41]. The integration of ecoliteracy in Indonesian language learning leads to the achievement of environmentally aware students' mentality. In addition, this learning design is categorized as High Order Thinking Learning (HOTS) because it is designed in a learning strategy that guides students to construct their cognition, affection, and psychomotor.

In the research process, researchers approach ecological literacy in various ways through language skills. To improve reading skills, researchers use contextual folklore text media from Boyolali so that they can improve reading skills. Listening skills are also integrated into reading learning. In this study, researchers prepare folklore texts and take turns to listen in groups. Writing skills with the media of writing folklore from each region by maintaining local wisdom. This attracts students' attention to write and develop their creativity. Improving speaking skills is done by retelling the text that has been written and conveying information and moral messages contained therein. Through this activity, an increase in language skills can be seen through an ecological literacy-based learning model.

By improving language skills in Indonesian language learning based on ecological literacy, further research can make a significant contribution to improving the selection of more varied learning models. The uniqueness of the ecological literacy-based model lies in contextual learning or more directed towards local wisdom so that it seems more real by utilizing the surrounding environment. In the implementation process, researchers together with students and teachers are directly involved and gain interesting experiences during the activity. This research is also another alternative in responding to student learning styles that tend to differ between individuals. In addition, the learning process that is arranged is also updated according to actual linguistic information. Thus, the use of ecological literacy in Indonesian language learning can provide new contributions in delivering Indonesian language learning materials for students in schools.

The implication of using ecological literacy is to increase awareness and knowledge of all parties related to the choice of learning models and significant improvement of language skills. By providing environment-based learning, students will have real experience related to the learning process. In addition, the direct benefits obtained by students and teachers are that learning becomes more interesting and strengthens students' critical thinking patterns to find out more about the material being taught. However, in this study there are still limitations of the study. Sampling using purposive sampling limits the generalization of uneven population results to all students. Second, there are limitations of resources and time and the scope of classes where the application of the ecological literacy-based model is carried out. Therefore, further research is still needed that includes a wider population sample so that it produces a more significant influence on improving language skills.

## **4. CONCLUSION**

The process of learning Indonesian requires innovation in the application of learning approaches. Empirical evidence obtained in field observations shows that the mastery of language skills of class X students

of Vocational high school 1 Sawit Boyolali is still lacking. To overcome the problem of students' lack of language skills, it is recommended to adopt an innovative learning process. The selection of the ecological literacy approach is considered to have a positive impact towards contextual. This learning combines language skills, namely reading, listening, writing, and speaking which are integrated with ecological literacy. The components in ecological literacy greatly support students in improving their language skills. In addition, ecological literacy is also able to provide significant encouragement to the process of learning Indonesian. This learning encourages students to be more active in reading and understanding contextually so as to form the courage to convey information both verbally and in writing through the learning process.

Therefore, this study discusses Indonesian language learning based on ecological literacy in improving students' language skills. The goal is to improve students' language skills. Language skills are considered important in the language learning process, so additional research can be done by developing innovative and appropriate models, media, and selecting assessments based on ecological literacy. This must still prioritize an active, creative, and effective learning process in the educational environment.

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