

# Benefits and Challenges of Learning Indonesian Language with an Environmental System: An Action Research at High School in Surakarta

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## ABSTRACT

Writing skill as one of the components in Indonesian language learning which has a central role in increasing students' creativity and critical thinking skills. Unfortunately, teachers are not observant enough in determining the context that is built to achieve the highest level of writing competence. The purpose of this study was to (1) compare and analyze the ability of high school students in writing environmentally sound texts, (2) to explain the benefits and challenges of learning Indonesian with an environmental perspective and its opportunities in educating high school students to be more contextual in building sensitivity and awareness in life. The study used a mix method research, which combined qualitative and quantitative research. The research procedures carried out were (1) analyzing teacher competence in developing learning tools, (2) text structure and linguistic characteristics, (3) actions taken by the teacher and the process of combining ideas to include ecological insights in the text of the observation report. The teacher provided the opportunity for students to find problem information, arguments, knowledge, and recommendations from the images that had been displayed at the beginning. The measuring instrument used was a language test and environmental skill. The test was developed based on the ecological context and looked at the development of the students in composing complex texts.

## Keyword:

Indonesian Language, environmental literacy, writing, action research

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## Introduction

Environmental issues are a continuously problem to remind the government and the whole society in general to be more sensitive in maintaining their daily life styles. Based on behavioristic principles in learning, intensity of stimulus has a major effect on the sensitivity of a person (Maknun, 2011; Saddhono et al, 2020). As crucial issues in the society, the stimulus provided is not just motivation but also elaboration on aspects of mass communication in society. The scope of the environmental theme is not only about natural disasters but also moves the reader to care in a real action.

Education aspect is the most strategic sector for integrating environmental improvement issues. This research integrates environmental issues with Indonesian language subjects. There are two important reasons, namely (1) Indonesian language subject is a compulsory subject at every level of education in Indonesia (Suwandi, Yunus, & Rahmawati, 2016) and (2) through Indonesian language subjects, it can be presented to students

of various types of discourse which discusses environmental themes that are contextual and constructivist.

Writing skill as one of the components in Indonesian language learning holds a central role in increasing students' creativity and critical thinking skills. At high school level, students are equipped with complex writing skills with the construct of learning the characteristics of text and structure. A common mistake found in the learning process carried out by teachers so far is the lack of exploration in learning components in order to improve students' understanding and environmental care behavior (Pitt, 2010).

Some of the problems found in the text writing learning process according to their learning objectives (Pianta & Hamre, 2009). In general, writing is one of the indicators at the final level of learning achievement in Indonesian language in high schools. Unfortunately, the teacher does not develop the demands of the curriculum, so that students get a more interesting learning experience. Therefore, the teacher must

re-examine the indicators that have been arranged or set so that the indicators match the competence and learning needs of students.

In the education curriculum in Indonesia, writing skills are integrated into other subjects such as history, citizenship and Pancasila (The Five Principles), sociology, and music. These skills are certainly the basis for cross-sectoral learning which is important for students to master. Writing skills have many benefits as an alternative to expressing ideas or thoughts and becoming a mass communication medium. Therefore, it is important for teachers to facilitate language learning so that it is not only about the achievement of the writing process but also links learning activities more contextually (Sudaryanto, Mardapi, & Hadi, 2019).

Writing as a productive skill requires reference, imagination, and learning experiences that students accept. The characteristics of students who have different environmental backgrounds require the teacher to prepare various learning resources as well. In the writing process, the teacher needs to provide a context for determining (1) teaching materials used, (2) instructional media, (3) learning methods, and (4) assessment tools that are tailored to learning inputs; student readiness, learning environment conditions, teaching materials.

The characteristics of language skills have relevance to learning activities designed by teachers both in teaching materials, teaching methods, and students' acceptance. Every student has a dominant interest and talent in language skills that can vary. The interests of students develop based on past experiences, talents, and stimuli provided by the teacher. This has an impact on teacher preparation in compiling lesson plans.

The success of learning begins with the willingness of the teacher to provide more stimulus than the indicators designed in general. The indicators given by the teacher will give suggestions for students to think extra in finding solutions and look for other alternatives to express their ideas. The willingness from teachers to

improve students' language skills standards needs to be initiated as a form of learning based on higher order thinking skills (HOTS) (Lewis & Smith, 1993). In the end, it is necessary to innovate in complex writing learning at the high school level.

One of the issues underlined in this study is language skill (especially writing) with complex writing material, namely writing the text of the observation report. In connection with these skills the material will be associated with environmental insight. As a complex writing skill, students must have an understanding of the basic concepts of composition (Oakleaf, 2009). Based on the results of observations, students got some writing material before learning the observation report was carried out, namely writing procedural texts, descriptions, and narrative. Therefore, this study relates the material of writing the observation report with the issue of insight into the environment around the school and the environment where students live.

Based on the results of observations in learning to write complex texts in several schools, teachers still dominate learning by acting as the sole information giver. The models and methods used by the teacher are still dominated by one-way lecture activities so that they are less attractive to students. Students feel they are not given the opportunity to develop their potential and have an opinion. In addition, the teacher does not modify the use of handbooks or textbooks as the only learning material. This resulted in students' writing skills not developing. The use of facilities and infrastructure owned by the school has not been optimally utilized, namely learning is always carried out in the classroom. In addition, teachers do not get students to write as a means of expressing ideas and feelings.

This study discusses the procedures used by the teacher in utilizing ecological issues (environmentally sound) as an idea in developing the text of the observation report. These problems are described to answer the challenges of teachers and students in carrying out an innovative learning process.

## Literatur Review

Cultivating awareness about environmental conservation can be done through language learning. Knowledge and values are communicated and internalized through the use of good and correct language. The teacher will implement the central concept in ecology, namely the ecosystem as a system formed by the reciprocal relationship between living things and their environment (Suwandi, Yunus, & Rahmawati, 2017). Efforts to build a sustainable society, whether at the global, national or regional level are increasingly seen as important. A sustainable society builds and organizes its life together based on awareness of the importance of the environment. This awareness is known as eco literacy or ecological literacy.

Roth divides ecological literacy into four components, namely (1) knowledge which includes ecological knowledge, social-political knowledge, and knowledge of environmental issues (knowledge of environmental issue); (2) affective tendency; (3) behavior which includes additional determinants of environmentally responsible behavior, environmentally responsible behavior, and (4) cognitive skills (Roth, 1992).

The knowledge component includes: (1) general knowledge of environmental concepts (ecology) which refers to a person's knowledge and understanding of natural systems working and how they relate to social systems; (2) social-political knowledge, namely understanding of a political system belief, ecological (environmental) values of various cultures, and understanding of how cultural activities affect the environment from an ecological perspective; and (3) knowledge of environmental issues, which includes understanding of environmental problems originating from human interactions and knowledge related to alternative solutions to environmental problems (Rahmawati, Suwandi, Saddhono, & Setiawan, 2019).

One of the activities that support environmental problem solving is writing reports on the results of observations that require effective

sentences so that readers can easily understand. In scientific reports, the writer must understand that a good sentence has a subject and predicate in order to qualify as an effective sentence. Sentences composed by students must consist of content and form. The content in this case is the thought of the author, while what is meant by form is the word that represents the author's thought. The choice of words (diction) from an effective sentence is certainly not imaginative and denotative.

Language skills that are realized in the form of language use can be divided into two, namely receptive and productive skills. Receptive skills are the use of language to understand messages, opinions, feelings, etc. conveyed by others. Expressive skills are the use of language to communicate messages, ideas, opinions, and so on to others. Writing is defined as a series of one's activities in order to express ideas and convey them through written language to others so that they are easily understood.

One indicator of language learning is to minimize bias and misunderstanding in the communication process. Language as a language base requires constant treatment and can easily become a practical skill for the speaking community (Binder & Watkins, 1990). The more competent in communicating, the resulting communication will fulfill the maxims of quality and quantity together. Language skill as a form of actualization in communicating from a language community group requires continuous practice (Zyoud, 2016). Communication as a system of expressing opinions requires good language and does not cause multiple meanings so that it is easy to understand, especially one-way communication such as writing skills. In writing skills, readers cannot directly confirm ideas so that there may be misconceptions in the writing.

Learning is a complex system; there are schools, teachers, learning process, and students. They each interact to achieve indicators in learning. School factors include organizational culture, school quality indicators, and institutional context (Horwitz, 2001). Teacher as one of the

determinant variables are not only required to be role models for students, but also as effective learning managers.

### Research Method

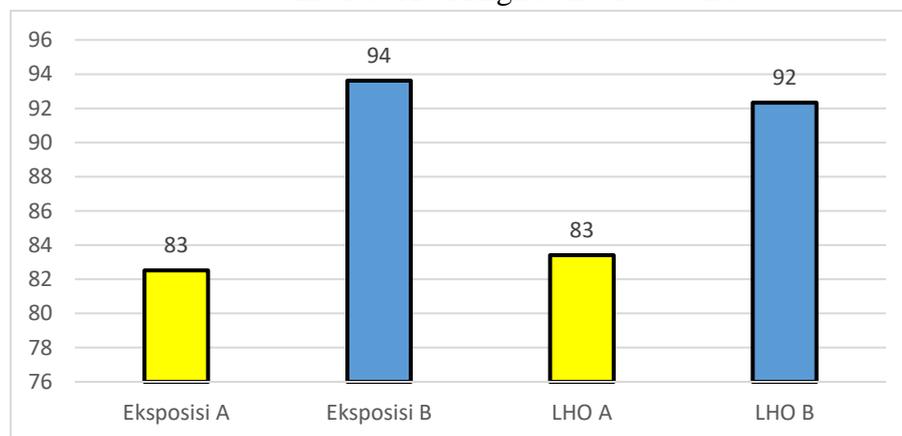
This study used a mix method research whereas combined qualitative and quantitative research (Thomas, 2011). Qualitative research was conducted to (1) analyze teacher competence in developing learning tools, (2) text structure and linguistic characteristics, (3) actions taken by the teacher and the process of combining ideas to include ecological insights in the text of the observation report. Validations of qualitative data were through triangulation of methods and triangulation of sources. Method triangulation was done by collecting data with different techniques to confirm the validity of the data (Maxwell & Reybold, 2015). In this study, triangulation was carried out by observation, interviews, and documents. The quantitative study in this research

was used to measure the ability of the test takers, namely students of class X SMA in Surakarta. The test was developed based on the ecological context and looks at the development of students in composing complex texts.

### Result and Discussion

The students' ability in writing experienced a significant increase, especially in the exposition text, which was 11% of the student's overall average and 9% of the writing skills of the observation report (is shorted from the origin language as 'LHO'). The significance of this increase is due to several factors, including (1) the complexity of the text and (2) the learning experience students had received. Below is a graph of the difference in the mean value of students with ecological topics (Exposition B and LHO B) and conventional (Exposition A and LHO A).

Chart. 1 Comparison of the average value of complex writing in class X of High School students



Several controlled factors in learning include (1) the same learning resources, (2) learning methods, and (3) media and assessment tools. Teachers get a common perception regarding learning outcomes and outputs, namely increased student competence. Writing activities in school require extra planning because each student has different basic motivations and abilities. The skill of writing report text is a text that contains a general description / reports something in the form of the results of

observations. This report text is also called a classification text because it contains a classification of the types of things based on certain criteria. This type of text describes general things, features, or characteristics such as objects, animals, plants, humans, or events that occur in the universe. The text of the observation results is factual or based on existing facts.

The teacher conducts peer-to-peer discussions to determine which LHO (observation report) text learning steps are the most acceptable

and become a fun process for students. Learning activities are packaged in independent activities and observations through student worksheets. Students are asked to carry out several structured activities, including (1) determining the object / phenomenon / event to be written, (2) making a list of aspects to be observed, (3) making observations, (4) documenting the results of observations by recording, shooting and

recording, (5) compiling a text frame according to the observation data by paying attention to the structure of the observation report text, (6) developing the text framework into a complete and coherent observation report text, (7) completing the result report text observation with linguistic elements. Before learning takes place, students get material about complex text concepts, namely exposition and reports of observations.

General Statement	Problem Solving: the students solve environmental issues provided by the teachers	The opening section of the text contains a general description. General information in a text is usually filled with Latin names or certain terms that are more familiar as the discussion topic, the origin of the main topics, additional information that will be reported regarding the topics raised in the text.
Description of Part	Creative Thinking: Students found many ways to solve the problems. Students were given the freedom to find the point of view and to explain for the part of the environment.	The topics reported by students were based on observations and research in the field. It contained a picture or described the parts in more detail about the object being observed.
Description of Benefit	Critical Thinking: examined the benefits of the learning process based on the life cycle of living things and how each biotic / abiotic component interacts.	Summary or benefits of the object observed. Presented persuasively and can also be generalized. The text will be more interesting if it is conveyed requests / suggestions / prohibitions so that the reader in society cares about ecological issues written by students.

Productive skills, especially writing activities for students, are a form of communication in presenting in writing the complexity of one-way information as a text that prioritizes the use of good and unbiased language (Javed, Juan, & Nazli, 2013). By looking directly at the object of observation, students are expected to have a record or description of the object. Furthermore, this description can be put into writing. As a result, students' language productivity increased because the things written / described are as detailed as what they see, hear,

and feel for themselves. This method can be implemented individually and in groups.

In individual assignments students can provide arguments and verification of the information gathered. Each student was given the freedom to explore information and look for points of view according to learning creativity. The group assignment process was carried out when students conducted discussions and collected main data. One of the dimensions of critical thinking is proofing and reasoning, which means that each student can argue in order to find the most ideal conclusion (Nitko & Brookhart,

2011). The use of the environment as a learning resource will make students feel happy rather than just listening to the teacher's explanation in class (Attwell, 2007). The teacher provided a stimulus regarding the use of good and correct language according to linguistic rules. Based on the results of the text structure analysis in the student observation report, there

were several structural mistakes in the text, paragraphs, sentences, diction, and spelling.

No.	Type of Mistakes	Amount	Percentage (%)	
1.	Text Structure	a. Text Structure Arrangment	2	0, 75%
		b. Incomplete arrangement	1	
1.	Paragraph	a. The use of paragraph unity	2	4, 48%
		b. The use of paragraph composite	3	
		c. Paragraph comprehension	6	
		d. Paragraph Structure	7	
2.	Sentence	a. The use of idea composite	1	5, 47%
		b. The use of prudence	20	
		c. The use of Logic	1	
3.	Diction or word choice	a. The use of inappropriate diction	26	7, 21%
		b. The use of unusual diction	1	
		c. The use of informal diction	2	
4.	Spelling	a. Word Usage	93	82, 09%
		b. Word Spelling	49	
		c. Pucntuation Usgae	188	
Total		402	100%	

Table. 1 Number of Text Structure Mistakes and Language of Student Observation Results Report

Exposition writing mistakes and observation reports with the highest percentage were in the spelling. For teachers, teaching spelling is a stimulus that must be continuously improved in order to improve students' language attitudes. One of the factors causing errors in spelling is the lack of writing practice, students write during lessons and only to fulfill assignments so that students do not pay attention to correct grammar in doing (Al-Roomy, 2016). In addition, many mistakes were found in the student's observation report because students found it difficult to speak the language of the observation report, which included paragraphs and sentence selection.

Learning begins with an explanation of important information in the exposition text. The teacher links the exposition text material with everyday life, also explains the ecological relationship with the exposition text (Suwandi, Yunus, & Zainnuri, 2018). The teacher explains the content of the exposition text, which is very interesting and can be developed with many paragraph development patterns that are not only deductive and inductive, but the teacher also explains paragraph development with analogies, specifications, and generalizations.

The teacher explained the structure of the exposition text and its linguistic characteristics with a slideshow that contains the definition and

structure of the exposition text information. The teacher asked the students to analyze aspects of the content, language, and structure of the exposition text in the book. After that, the students presented the results of their analysis in front of other friends. After presenting the results of the analysis, the teacher gave the students a task to find videos from YouTube that contains about the Indonesian environment.

The teacher gave students the opportunity to find information on problems, arguments, knowledge, and recommendations from the images that have been displayed at the beginning. Students were divided into 8 groups, each consisting of 4 people heterogeneously. Students were asked to identify the information in the images presented. Each of the two groups discussed the same topic related to the content of the exposition text. The discussion run for 15 minutes and each student was given chance to seek more accurate information from learning sources and Internet. After finishing the discussion, students were asked to present the results of the discussion.

Furthermore, students were asked to read the text from the module provided and discuss the topic of the book. After the students finished discussing, they presented the results of the analysis of the content, structure, and language of the exposition text. During the presentation, students are allowed to provide input. Based on the learning of the first meeting, the teacher concluded that the learning was successful because every indicator planned by the teacher was achieved. Student interest has increased as seen from the completion of all assignments and bills that have been submitted by the teacher.

The important point in learning was that the teacher explained the tasks that students must do at home, there were (1) finding videos of Indonesian environments, (2) comparing the Indonesian environment with urban areas in Indonesia, for example Jakarta, Yogyakarta, or Bandung, and (3) creating a text frame exposition. During learning there were no significant obstacles because students do not experience

problems in understanding the material presented by the teacher. When students presented the results of the learning analysis they were not passive, other students who asked and answered questions show it enthusiastically. The class ended with an assignment as a process of strengthening the information received by students.

Students started the lesson by watching the video provided by the teacher, namely the preservation and management of the natural environment in Klaten regency, which is the best village shown by good oxygen quality, clean water management, and lots of trees. Students did not ask many questions but were enthusiastic about the video and were inspired to manage their surroundings. The second video provided by the teacher was related to the construction of a fishpond around the village. The video shows that the role of society is very important in maintaining the biotic and abiotic environment. Instructional videos are used by teachers as a medium to convey messages to make them more meaningful and acceptable for students (Mayer, 2017). In between learning, students asked questions about the function of studying ecology and its relationship with Indonesian subjects. The teacher answered that learning the expert report text on observation requires specific identification of three environments that must be well described, including biotic, abiotic, and socio-cultural. The teacher provided an example of each of these environments and conducted questions and answers with students. For example, "where can you find biotics such as insects, plants and grass?" Some students answered incorrectly then the teacher confirmed and gave other examples that were in the wider environment. At this stage the teacher also provided perceptions of utilizing information that is unknown to students.

The teacher provided motivation to learn by explaining the damage to the surrounding environment is a shared responsibility. The teacher explains floods, illegal logging and deforestation in Sumatra, Kalimantan, and some peatlands in Indonesia. Awareness of ecology must be fostered from the start because students

now are Indonesia's successor in the future. The teacher emphasized other examples that allow damage to occur in the surrounding environment. Such as garbage fires, short circuit and other minor damages. The teacher used power point media to explain the definition of the LHO text (Observation Result Report). The media used was in the form of overlapping text. Students were more enthusiastic about the learning occurred.

Student activities outside the class lead students to observe real objects so that students' ideas and perspectives could be more easily expressed clearly, concretely, and completely. The process of compiling the observation report text using the observation method, students got a learning experience that was invited outside the classroom to see the object of observation that had been determined as relevant to the learning material.

Before making observations, students asked a lot about the linguistic characteristics of the LHO text (report of observation) as new material for students. The teacher also explained with examples around the school after the teacher explained the definitions, concepts, and facts of the LHO text. These examples could be developed with procedural material. The advantage of this learning is contextual material. Students are given the freedom to express and explore ideas from the environment around them.

Students were asked to collect assignments that had been given in the previous meeting. Students were asked to develop a text outline that had been assigned in the previous meeting. The teacher explained again about the structure of the exposition text and asked questions about the identification of problems that exist in the environment that had been determined by the students. The teacher gave 40 minutes for the students to develop the text framework.

As long as students completed the text that had been written in the framework, the teacher controlled the student's work and answered their questions in constructing an exposition text. After students completed the exposition text developed from the teacher's framework, the teacher asked

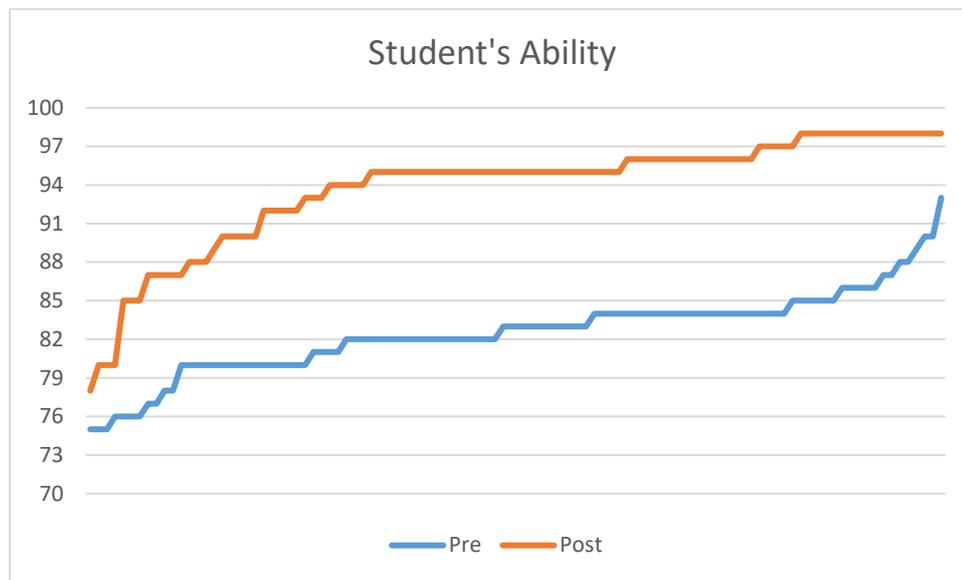
several students to present their work in front of other friends. Several things were corrected by the teacher during the learning carried out by the students, among others, (1) the use of standard linguistic rules, (2) the selection of an unattractive title, (3) developing monotonous paragraph ideas, (4) the lack of prominence of the argumentation section and reaffirmation because the paragraph development of the thesis section is too prominent.

Writing the observation report text is a complex process that is fun for students. Most teachers use the school environment as a source of student learning and explore the willingness of the students to develop skills in expressing their ideas. In the process of writing a report on the results of observations, students must determine the main idea, which is the key problem that will be raised in writing. The identified problems must be developed into paragraphs through observations in the environment around students. Structured observation is expected to increase student interest in learning as well as increase the intensity of communication outside the classroom.

Learning process was progressing well and the specified indicators have been achieved. Asking questions when learning takes place showed enthusiastic students. On the other hand, teachers gave a lot of appreciation for the learning process carried out in class. Some of the results of teacher evaluation based on learning include (1) students were helped in developing the exposition text by making a learning framework, (2) the time given was insufficient because students had to explore the internet such as pictures, videos, and information from the mass media, (3) all students could complete the exposition text based on ecological topics at the second meeting, (4) some students adapted the exposition text provided by the teacher to complete their writing, (5) some students had difficulty identifying the argumentation and reaffirmation sections. When students wrote, the teacher explained again about the definition of the argument and its differences with reaffirmation.

Student learning outcomes, seen from the aspect of the ability to write complex texts

continue to improve for both students with low and high abilities



Curve.1 Students' Ability in Writing Complex text

Based on the curve of the students' ability in writing complex texts, it can be seen that learning activities that emphasized the active learning process went well. The teacher explained the sample text in the Indonesian language module. The sample text was used as a reference for the structure of the LHO (observation report) test and its language characteristics.

Students had difficulty imagining an ecological context that was too far away geographically and the characteristics of its environment. The teacher provided an alternative area with almost the same characteristics so that students had no difficulty explaining the concept of a well-maintained ecological environment. Some of the learning activities took place include (1) learning in the classroom was more authentic because the teacher invited students to interact directly with the natural surroundings at school. (2) The module was used to make it easier for students to understand facts, principles, and concepts of learning material. (3) Students had difficulty observing and explaining parts of the LHO text but it can be explained well. (4) There was a positive interaction between the teacher and students, among others, shown by questions and answers, discussion, and feedback given a positive response (Schlesinger, 2008).

The topic of the observation report was accepted by students more easily through observation of the environment around the school and residence. Observations made by students were helped by the scope of the surroundings and the daily lives of students in that environment. After students understood the facts from the text of the final observation report, each student is asked to make conclusions and implement them in the LHO text framework which then be made at the next meeting. Some of the weaknesses in the learning carried out by the teacher, among others, were that students cannot distinguish between the definitions of a part and a general definition. In addition, the use of relational verbs and active verbs still confused students. When students were asked for observation, the teacher did not have an observation guideline. On the other hand, it became easier for students to define and describe objects so that it increased the productivity of the sentences while at the same time making students honest and confident when writing because students actually observe the object of their writing in real terms in their environment. Thus, students' understanding, activeness, and skills in composing complex texts were increased.

## Conclusion

Learning with an ecological orientation provides flexibility for teachers to explore students' abilities. Standardization of learning elements is carried out between teachers to find learning formulations to write complex texts. The teacher conducts peer-to-peer discussions to determine which steps to learn complex text are the most acceptable and a fun process for students. Learning activities are packaged in independent activities and observations through student worksheets. In general, the students' ability in writing increased by 11% from the overall student average, while 9% in the skills of writing reports on observations. The characteristics of LHO (observation report) writing that are more complex than the exposition force the teacher to find the most effective method for teaching the students. The significance of this increase is due to several factors, including (1) the complexity of the text, and (2) the learning experience students received. Writing activities emphasize the ability to think critically, creatively, and solve problems within the scope of ecological topics. Teachers provide opportunities for students to explore the school and surrounding environment.

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