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# What Teachers Need in Implementing Environmental-Based Learning in The Elementary School

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## ABSTRACT

Much research explained that environmental-based learning contributes significantly to learning quality, but many teachers have not implemented it in the learning process yet. Therefore, this study aimed to describe what teachers need in the implementation of environmental-based learning in the learning process in elementary schools. This study used a quantitative and qualitative design that involved 16 teachers from four elementary schools as research participants. The research data, in the form of nominal data, was collected through a questionnaire, document analysis, and checklist, while verbal data about the problem in implementing environmental-based learning by interview. Nominal data were analyzed by simple statistical analysis techniques, while verbal data was analyzed by following the steps: reduction, classification, categorization, presentation, interpretation, and conclusion. The findings showed that in implementing environmental-based learning, teachers faced many problems caused by internal and external factors, which include the lack of teachers' experience, unavailable sources of information and examples as references, media and facilities available in schools, and policy factors. Teachers needed technical guidelines, workshops/training, and learning media of the learning model to improve their learning. These findings are significant as a basis for policy-making in increasing the learning quality. In addition, these findings lead to an analysis of school needs in developing learning quality.

**Keywords:** Implementation; Environmental-Based Approach; Learning; Elementary School

## INTRODUCTION

Learning activities always take place and interact with the learning environment. In this interaction, students face challenges and problems in meeting their learning needs to adapt to the environment and seek solutions to overcome these problems. These activities have an impact on behavior changes in individuals as a result of their interaction with their environment. In this context, consciously or unconsciously, they have done and experienced a learning process. The learning experiences change students' behavior in individuals as a result of their interaction with their environment.

The ultimate learning goal is the change students' behavior. In learning, students interact with their learning environment to absorb new information and knowledge that is useful for solving various problems in their lives. According to cognitive learning theory, education activity aims to produce individuals or children who can think and solve problems they face (Talkhabi & Nouri, 2012). The ability to solve problems often occurs in interactions between students and their learning environment, both in groups and individually, by analyzing problems and finding solutions.

In conducting learning, teachers and education staff must consider the learning environment to maximize student interactions. In principle, creating a learning environment is an intentional activity to encourage students to carry out learning activities. A comfortable and conducive learning environment provides opportunities for students to construct their knowledge and understanding of learning (García-Carrión et al., 2018). Learning has a role in the educational process because only learning can transfer the most knowledgeable and ethical values.

Learning is a system that consists of several components that support each other. In the learning system, they interact, interrelate, and depend on each other to achieve learning goals and targets. These components of the learning system include students, educators, curriculum, teaching materials, learning media, learning resources, learning processes, facilities, environment, and goals. These components need to be prepared or designed according to the learning program to be implemented.

Learning always takes place in a location with a variety of surrounding contexts. The location can be a natural place or a prepared place in advance according to the expected goals. The location and context of the learning process is the learning environment. Thus, the learning environment refers to physical locations and cultures that make students do learning activities (Prameswari & Budiyanto, 2017). Because students can learn in various models and mechanisms, the environment for the learning process can take place inside or outside the classroom. Classroom learning is learning in a limited space and is less attractive to students. Because of this, out-of-school locations and outdoor environments are alternatives that are more challenging or preferred by students.

School culture or cultural interaction occurring in the classroom is also a learning environment. The cultural diversity involved in this context includes the learning ethos, characteristics of interactions between individuals, individuals' ways treat each other, and the ways teachers organize the educational environment to facilitate learning (Özerem & Akkoyunlu, 2015). This statement illustrates that learners use various learning ways in different contexts. Because students must carry out learning activities, it is necessary to create and optimally utilize the learning environment to optimize students' abilities and obtain an optimal learning experience. The limitation of the learning environment and learning media/resources will make learning unattractive and not optimal in achieving a learning experience.

Students learning motivation will increase when they do meaningful learning tasks in their life. The challenging tasks span the thinking skills and social skills of students. In addition, the students' assignments should base on students' daily life experiences. In certain situations, to increase students' enthusiasm for learning, teachers can work jointly with others to provide integrated/interdisciplinary assignments by integrating several subjects.

The excitement of student life outside of school can be a reference to stimulate student learning. The students' diversity, flexibility, and similarity existing in real life in the community are the basis for forming student working groups. Therefore, in grouping students in learning, teachers must consider the principles of (a) diversity in terms of gender, culture, ethnicity, religion, and learning style, (b) flexibility in forming groups according to the learning objectives, and (c) equality, namely the fair treatment of students.

Students' growth and development do not occur through learning in a classroom physically bounded by four walls and with tables and chairs neatly arranged but also in the surrounding environment, namely student activities outside the classroom. Learning in class often creates students' boredom because students feel they are in another world that is not their

world. Students feel deprived of their freedom, restricted in their fun and laughter, and neglected their desires. As a result, students' creativity does not grow optimally because they only try to comply with the learning system demanded by the school.

Environmental-based approach to learning can bridge students to rediscover their hopes. Environment-based learning is a learning strategy utilizing the environment as a learning target, resource, and tool. This learning encourages students to solve environmental problems and to inculcate an attitude of loving the environment. This learning will be very effective if applied in elementary schools because relevant to the level of intellectual development of elementary school age (7-11 years) at the concrete operational stage. Elementary school students like games and moving in learning prefer exploration and investigation outside the classroom.

Much previous research conducted a study on the implementation of environment-based learning. Research entitled *The Effectiveness of the Implementation of Environmental-Based Learning Media toward the Mathematical Problem-Solving Ability and the Impact on Students' Nationalism Attitudes* (Parwati et al., 2019) found that environment-based learning has a significant effect on improving students' ability to solve problems. math problem. Research by Wulandari et al. ( 2019), entitled *Implementation of Environmental Education Based Local Potential to Increase Student Environmental Knowledge*, found that local content-based learning increases students' knowledge about the environment. Other research on environment-based learning was conducted by Suryawati et al. (2020) whose results showed that the implementation of local environmental problem-based learning strengthens students' environmental literacy.

The description above shows that environment-based learning has benefits in improving the quality of student learning processes and outcomes. However, the problem is that not all teachers apply this approach in the learning process at school due to various reasons. Therefore, to reveal these reasons, this study aims to describe what teachers need in the implementation of environment-based learning in elementary schools. This study focuses on the description of (1) what is needed by teachers in implementing environment-based learning, (2) what are the school policies in implementing environment-based learning, and (3) what are the recommendations for implementing environment-based learning. The findings of this study become documentation as information resources for developing school policies to improve the teaching-learning process. In addition, the results of this study can be a reference for future researchers who examine learning policy issues.

## METHOD

### 1. Research Design

This study used quantitative and qualitative designs to describe the teachers' experiences in the implementation of environmental-based learning in elementary schools. This study applied quantitative design to measure the teachers' experiences in implementing environment-based learning competence and the schools' readiness to conduct environment-based learning. The measurement aimed to determine and describe teachers' competencies and schools' policies needed for conducting environment-based learning. This study also used a qualitative design to describe the problems faced by teachers in environment-based learning for determining a recommendation for implementing environment-based learning.

## 2. Sample and Data Collection

This study was conducted in 4 elementary schools by involving 16 teachers as participants. The selection of elementary schools used purposive area random sampling taking into account (1) sample schools located in villages and cities, (2) sample schools located in different districts, (3) sample schools located in environments that have potential as learning resources, and (4) the sample schools have a sufficient number of students. The data of this research were quantitative data and qualitative data. Quantitative data was in the form of nominal data collected through questionnaires, documentation analysis, and a checklist in carrying out observations, while qualitative data was verbal data collected through interviews. The questionnaire was applied to 16 sample teachers to collect data on teachers' experiences and schools' readiness for implementing environment-based learning. The document analysis was a technique to collect data on the representation of the environmental-based approach in the learning plans, while the checklist during the observation was a way to check data on learning activities applying environment-based learning. The interview with sample teachers aimed to gain information about the problem in the implementation of environmental-based learning.

## 3. Analysing of Data

Nominal data were analyzed quantitatively using simple statistical analysis techniques with the following steps: counting the number of data items according to the problem under study, tabulating the data, calculating the frequency of each component, calculating the percentage, presenting the data, and interpreting the results of the analysis. The qualitative data were analyzed using the following steps: reducing, classifying, categorizing, presenting, interpreting data, and concluding the findings. Reducing data was carried out to simplify data in certain classifications and categorizations according to the focus of the study. Presenting data was in the form of essays supported by a table of frequency and percentage to confirm the magnitude of the problem. Interpreting and concluding were the final stage for discussing and explaining the meaning of the findings.

## RESULTS AND DISCUSSION

### Results

Based on data analysis from questionnaires, document analysis, checklist notes during observation, and interviews, the results are as follows.

### 1. Teachers' Experiences in Conducting the Environmental-Based Learning

Based on the research results, the number of experienced teachers in implementing environment-based learning appears in Table 1 below.

**Table 1**
**Number of Experienced Teachers in Implementing Environment-Based Learning**

| Num | Indicators | Yes | | No | |
|---|---|---|---|---|---|
| | | **F** | **%** | **F** | **%** |
| 1 | Teachers have experience in implementing environmental-based learning. | 4 | 25 | 12 | 75 |
| 2 | Teachers understand the function of environmental-based learning. | 12 | 75 | 4 | 25 |
| 3 | Teachers know the advantages of environmental-based learning. | 6 | 37,5 | 10 | 62,5 |
| 4 | Teachers understand the models of environmental-based learning. | 8 | 50 | 8 | 50 |
| | **Average** | **46,88%** | | **53,12%** | |

Table 1 shows that of the 16 teachers who were the sample of this study, only 46,88% of teachers have experience in implementing environment-based learning, while 53,12% of them stated that they do not have it. The result shows that not all teachers have a good understanding of implementing environmental-based learning. They have already understood the function of environmental-based learning, but they generally do not apply the learning strategies and models.

## 2. Teachers' Willingness to Implementing Environment-Based Learning

The teacher's performance in implementing environment-based learning appears on the willingness and activities carried out to prepare the documents needed in planning the learning implementation. The distribution of the number of teachers' performances for implementing environment-based learning appears in Table 2 below.

**Table 2**
**Teachers' Performance for Implementing the Environmental-based Learning**

| Num | Indicators | Yes | | No | |
|---|---|---|---|---|---|
| | | **F** | **%** | **F** | **%** |
| 1 | Teachers have a passion for carrying out Environmental-based learning | 16 | 100 | 0 | 0 |
| 2 | Teachers seek information and seek supporting facilities for the implementation of Environmental-based learning | 4 | 25 | 12 | 75 |
| 3 | Teachers seek to find references for program development and learning guides as a reference for implementing Environmental-based learning | 4 | 25 | 12 | 75 |
| 4 | Teachers have an estimated tentative schedule for the implementation of Environmental-based learning. | 4 | 25 | 12 | 75 |
| | **Average** | **43,75%** | | **56,25%** | |

Table 2 above shows that all teachers stated that they had the will to implement environment-based learning, but only 43.75% of teachers tried to find and find reference

sources for implementing this learning model. Meanwhile, 56.25% have not tried to find references and develop programs for implementing this learning model. From the table, we know that 100% of teachers want to conduct environmental-based learning, but only 25% of them try to seek learning support facilities, guidelines as a reference for implementing learning programs, and a tentative schedule for the implementation of learning.

### 3. The Availability of Teachers' Learning Documents for Implementing the Environmental-based learning

The availability of documents in the form of guidelines and reports on the results of learning implementation that utilize environmental-based learning shows that the teacher has implemented the learning model. Guidelines for preparing lesson plans, syllabi, and learning models are documents used as a reference in developing learning plans and implementation. Meanwhile, the report is factual evidence showing that the school has implemented the learning model. However, not all schools have this document, as outlined in Table 3 below.

**Table 3**
**The Availability of Learning Documents for the Implementation of Environmental-Based Learning**

| Num | Indicators | Yes | | No | |
|---|---|---|---|---|---|
| | | **F** | **%** | **F** | **%** |
| 1 | Teachers have references/guidelines in preparing learning plans by utilizing the learning environment as a learning resource. | 0 | 0 | 16 | 100 |
| 2 | Teachers have a lesson plan or syllabus relating to the learning environment as a learning resource. | 4 | 25 | 12 | 75 |
| 3 | Teachers have a reference model of learning that utilizes the learning environment as a learning resource. | 0 | 0 | 16 | 100 |
| 4 | Teachers have recorded documents or reports, either in the form of essays, photographs, or videos for learning resources. | 8 | 50 | 8 | 50 |
| | **Average** | **18,75%** | | **81,25%** | |

Table 3 above shows that 81.25% of teachers do not have documents for implementing environment-based learning. The data shows that only 18.75% of teachers have a lesson plan or syllabus and recorded documents relating to the learning environment as a learning resource. It illustrates that most teachers do not yet have the necessary guidance and program documents as a reference for implementing environmental-based learning.

These findings show that teachers need several references for utilizing the environment as a learning resource. Most teachers need references to develop lesson plans for implementing environment-based learning. In addition, although some of them have photographs, they still need a reference model of an environmental-based approach to learning. Teachers have not formally explored the potential environment for planning learning implementation. Schools have not set up and programmed a learning model that utilizes the environment as a learning resource.

### 4. The Schools' Policy for Implementing Environment-Based Learning

The teachers' responses about the supporting facilities in schools for implementing environment-based learning appear in Table 4 below.

**Table 4**
**Teachers' Responses of the School Policy in Implementing Environmental-based learning**

| Num | Factors | Yes | | No | |
|---|---|---|---|---|---|
| | | F | % | F | % |
| 1 | The school develops facilities and infrastructure to support the use of the environment as a learning resource. | 4 | 25 | 12 | 75 |
| 2 | School engages teachers to prepare the guidelines used as a reference for implementing learning. | 2 | 12,5 | 14 | 87,5 |
| 3 | The school encourages all staff to develop learning resources for implementing the learning by utilizing the environment as a learning resource. | 8 | 50 | 8 | 50 |
| 4 | School environmental conditions support the use of the learning environment as a learning resource | 12 | 75 | 4 | 25 |
| 5 | School provides convenience and freedom to teachers in using the environment as a learning resource | 4 | 25 | 12 | 75 |
| 6 | School climate and culture support the implementation of Environmental-based learning. | 12 | 75 | 4 | 25 |
| | **Average** | **43,75%** | | **56,25%** | |

Table 4 above describes the teacher's response to school facilities for implementing environment-based learning. The table shows that 43.75% of teachers stated that school facilities support the implementation of environment-based learning, while 56.25% of them stated that school facilities did not support it. More than 50% of teachers stated that school resources, environment, climate, and culture support the implementation of environmental-based learning. However, more than 75% of teachers responded that school facilities and schools' policies do not support the use of the learning environment as a learning resource.

### 5. The Representation of Environment-Based Learning in the Teachers' Lesson Plans

Based on the document analysis results, the representation of environment-based learning in lesson plans appears in Table 5 below.

**Table 5**
**The Representation of Environment-Based Learning in Lesson Plans**

| Num | Indicators | Yes | | No | |
|-----|-----------|-----|-----|-----|-----|
| | | F | % | F | % |
| 1 | Teaching materials are selected based on the context of the learning environment | 0 | 0 | 16 | 100 |
| 2 | Learning scenarios maximally involve active students in environmental studies. | 4 | 25 | 12 | 75 |
| 3 | Learning resources and media are selected based on the availability of a potential environment | 0 | 0 | 16 | 100 |
| 4 | Learning evaluation is developed by utilizing environmental problems as a source of test or assignment material | 0 | 0 | 16 | 100 |
| | **Average** | **6,25%** | | **93,75%** | |

Table 5 above shows that 93.75% of the lesson plans developed by teachers do not reflect the environment-based learning model. This condition illustrates that teachers do not implement the learning that utilizes the school environment as a source and learning media. Of the 16 lesson plans analyzed, there were only 4 documents that designed learning scenarios by involving students actively in their learning environment.

## 6. The Representation of Environment-Based Learning in Learning Activities

The representation of environment-based learning in lesson plans appears in Table 6 below.

**Table 6**
**The Representation of Environment-Based Learning in Learning Activities**

| Num | Indicators | Yes | | No | |
|-----|-----------|-----|-----|-----|-----|
| | | F | % | F | % |
| 1 | The teacher explains and discusses learning material based on facts and phenomena that exist in the learning environment | 6 | 37,5 | 10 | 62,5 |
| 2 | The teacher uses media images or photos of the environment to explain the material or concepts. | 2 | 12,5 | 14 | 87,5 |
| 3 | The teacher invites students to observe the environment or visit objects related to the materials. | 8 | 50 | 8 | 50 |
| 4 | The teacher assigns students to analyze the results of environmental observations and report them | 6 | 37,5 | 10 | 62,5 |
| 5 | The teacher assigns students to compile reports on the results of visits/interviews with resource persons | 4 | 25 | 12 | 75 |
| 6 | The teacher assigns students to make group reports on the results of observations | 8 | 50 | 8 | 50 |
| 7 | The teacher assigns students to make a collection of documents (portfolios) about socio-cultural activities or facts about the environment | 0 | 0 | 16 | 100 |
| | **Average** | **30,36%** | | **69,64%** | |

In Table 6, the study found that in the learning interaction, 69,64% of teachers did not show the use of the environment as a learning resource. More than 50% of teachers never use facts and phenomena that exist in the learning environment to explain and discuss learning material. They did not use media images or photos of the environment to explain the material or concepts and never assigns students to analyze the results of environmental observations and report them. They did not assign students to make group reports on the results of observations and collect documents (portfolios) about socio-cultural activities or facts about the environment. Only 50% of teacher invites students to observe the environment or visit objects related to the materials and assigns them to compile reports on the results of visits/interviews with resource persons.

## 7. Teachers' Problems in Implementing Environmental-Based Learning

Through the interviews, this study obtained information on the teachers' problems and the factors causing the school problems in implementing environment-based learning. The problems are summarized as follows.

1) Teachers have difficulty in formulating learning objectives regarding the use of the environment as a learning resource. Teachers do not have sufficient understanding and do not have a guide as a reference in formulating these goals. What the teacher did is only based on the indicators contained in the syllabus.

2) The existence of textbooks follows the indicators and sequence of materials in the syllabus that attract teachers to select teaching materials that only come from textbooks. The government's policy that requires the use of textbooks shackles the creativity of teachers to seek and utilize other sources of material available in their learning environment.

3) Educational policies suggest using a scientific approach to learning, but teachers do not understand enough. The learning is only mechanical according to the syntax of the approach without considering the students' learning experiences.

4) Learning activities run following the material and activity scenarios formulated in the textbook.

5) Learning evaluation as a component of lesson plans is not formulated seriously to measure student learning success.

6) The location of the learning implementation is only centered in the classroom to learn time efficiently because it collides with a busy learning schedule.

7) The implementation of learning has not involved students observing the learning environment. In learning, teachers assess students only based on the results of oral and written tests.

8) The environment-based learning strategies and models, theoretically and practically, have not been understood by teachers because there has never been any socialization or operational guidelines as a learning guide.

9) The learning implementation policy has not regulated learning hours that provide flexibility to carry out visit activities during study hours.

10) The school has not formally explored the potential of the environment so the school does not have data on the environmental potential that can be referred to as a learning resource and integrated into the planning of learning implementation.

11) Schools have not set up and programmed a learning model that utilizes the environment as a learning resource.

**Discussion**

This section categorizes the results above into four discussions. The first discussion is about the teachers' competencies needed for implementing environment-based learning consisting of results described in Tables 1, 2, and 3. The second discussion is the schools' policy in implementing environment-based learning which covers results in Tables 4, 5, and 6. The last is the recommendation for implementing environment-based learning that discusses the result of teachers' problems in implementing environmental-based learning.

**1. Teachers' Needs for Implementing Environment-Based Learning**

The findings show that teachers are less understanding of the environmental-based approach to learning. Teachers' readiness is the first factor in conducting an environmental-based approach to learning. The teachers' readiness and willingness to implement a learning model and the availability of references and media tools as learning resources are the indicators of the school's readiness to conduct the program (Miranda et al., 2021). This lack of understanding causes less effective learning, regardless of whether the environment is a potential learning resource to support the learning quality (Mupa & Chinooneka, 2015). Theoretically, learning by utilizing the environment as a learning resource can increase students' enthusiasm for learning and cover residual learning success (Malik & Rizvi, 2018).

Teachers are the first elements in the implementation of learning. The learning activities - which use an Environmental-based approach - will run well if they understand the nature and functions of the learning environment as a learning resource and strategies and learning models using the learning environment as a learning resource. Teachers become conductors who direct learning and facilitators in learning interactions (Araghieh et al., 2011). Therefore, the less understanding of teachers in implementing the learning approach causes the low quality of the learning process (Lodge et al., 2018).

The findings above show that teachers need learning support programs and facilities for applying an Environmental-based learning approach. The availability of programs and supporting facilities is the main factor that ensures the implementation of the learning program well (see Cicek & Tok, 2014a). A good learning program contribution increases the quality of the learning process and outcomes (Iqbal et al., 2021). Therefore, developing guidelines and examples of these learning models can increase teachers' understanding of designing innovative learning plans and implementation (Cruess et al., 2008 & Casey & MacPhail, 2018). In addition, teachers need the training to deepen their understanding of using the environment as a learning resource. Through training, teachers can gain insight and practice to improve the quality of their learning (Yulianto, 2021).

**2. Schools' Policy in Implementing Environment-Based Learning**

In implementing learning in elementary schools, teachers must consider many dominant factors. This consideration can minimize learning problems and risks (Mason, 2019). Analysis of the factors supporting and inhibiting learning will help to choose the right learning strategies

and models (Limbong, 2019). Learning in elementary schools follows government policies, especially for state schools, which direct teachers to carry out learning programs following the curriculum (cf. Bell & Stevenson, 2015). Most teachers understand mastery learning not from the achievement of competence and complete understanding of students of the material but the completion of the allotted material per unit of time. This factor often makes teachers lose their creativity to develop learning innovations to master meaningful learning experiences (Bloom & VanSlyke-Briggs, 2019). In this context, government or stakeholder policies are a determinant factor in determining the direction of learning implementation (Arar et al., 2019).

Other factors in the implementation of learning are school conditions, including the community around the school, students' socio-economic conditions, and the school's climate and culture. These factors, directly or indirectly, affect teacher policies in deciding on learning models (Zhu, 2013). The limited location of the school and the densely populated community environment force teachers to provide one choice of formal learning in the classroom. Likewise, the socio-economic conditions of students and the school's cultural climate often become obstacles to teachers utilizing the environmental context as a place and source of authentic learning (Shumacher et al., 2012). However, these limitations do not eliminate the opportunity for teachers to implement an Environmental-based learning approach because teachers can use media and learning resources in the form of model objects, environmental photos, audio-visuals about the environment, and others. This depends on the ability and creativity of the teacher in learning development (Davies et al., 2013).

The schools' policies influence the quality of the learning process, both quality of the lesson plans and the learning activities. To judge the lesson plans, we have to consider five components: learning objective, learning materials, learning scenario, learning resources and media, and learning evaluation. For those, the lesson plan of environmental-based learning, at least, has the characteristics as follows (1) the formulation of objectives reflects that learning activities refer to the use of the environment as a learning resource, (2) the teaching materials come from the context of the learning environment, (3) the learning scenarios direct to maximize students' involvement in environmental studies, (4) the learning resources and media use the availability of a potential environment, and (5) the learning evaluation utilizes environmental problems as a source of test or assignment material. However, the study results show that teachers do not implement learning that utilizes the school environment as a source and learning media. Of 16 lesson plans, 93.75% of the lesson plans do not reflect environment-based learning.

To develop a good lesson plan, teachers must understand the learning objectives, learning materials, learning resources and media, learning strategies, and learning evaluation. Without understanding these components, the teacher cannot develop lesson plans properly. Teachers will face difficulties developing good lesson plans because they do not understand these learning strategies and models (Straessle, 2014 & Dorovolomo et al., 2010).

A good lesson plan will help teachers, especially novice or prospective teachers, to carry out teaching tasks (Sesiorina, 2014). In addition, a good lesson plan can direct learning activities through the learning objectives that have been formulated (Maulani, 2020). Without a lesson plan, learning will take place without direction and not effectively. Therefore, lesson plans have a role in the whole teaching-learning process. Apart from being a reference that guides the implementation of learning, the lesson plan can be a benchmark for the success of learning implementation (Cicek & Tok, 2014b).

The implementation of the use of the environment as a learning resource can be observed in the activities of teachers and students when the learning interaction takes place. The learning process using the environment as a learning resource appears in the teaching activities conducted by teachers. In the learning, teachers (1) explain and discuss learning material on facts and phenomena that exist in the learning environment, (2) use media images or photos of the environment to explain material or concepts learned, and (3) invite students to observe the environment or visit objects related to the material studied, and (4) assign students to analyze the results of environmental observations and report them.

The use of the environment in the learning appears in the evaluation at the end of the lesson. The tasks given by the teacher to students can be an indicator of whether learning utilizes the environment as a learning resource or not. These tasks can be in the form of (1) compiling individual reports on the results of visits/interviews with resource persons, (2) making group reports on observations, and (3) making a collection of documents (portfolios) about activities or data on the environment.

Various components are building the learning system. These components include teachers, students, teaching materials, media, and the environment as learning resources. The interaction of these components will take place effectively in achieving the objectives if it is well designed, implemented according to the plan, and evaluated the results (Clawson, 2008). Therefore, the implementation of learning always includes the preparation of lesson plans, interaction of learning implementation, and evaluation of learning outcomes.

## 3. Recommendation for Implementing Environment-Based Learning

In implementing learning in elementary schools, teachers face various obstacles in applying an environmental-based approach to learning. Many teachers have difficulty using the school environment in lesson plans and implementing it in their learning activities because they do not have a reference that guides the implementation of these tasks. To overcome this problem, schools need to have and document various learning guidelines, including environmental-based learning guidelines as a reference for teachers in preparing lesson plans, implementing learning, and developing learning innovation. The learning guideline helps teachers to gain insight into learning development (Khembo, 2020). The absence of guidelines as a reference for implementing an Environmental-based learning approach is the cause factor not implementing the learning model. To overcome this problem, the teacher group can conduct workshops to prepare these guidelines.

In the implementation of learning, teachers focus on school policies recommending the use of the syllabus, textbooks, and learning strategies formulated by the government in the national education curriculum. This policy limits the opportunities and creativity of teachers to develop learning models. The limitation of creative space causes the implementation of learning to be classical, without any more creative innovations. Regarding this problem, this study suggests that schools should provide an opportunity for teachers to create learning by utilizing available resources in the school environment to improve learning quality. Giving independence to teachers in developing their creations can increase the quality of learning processes and outcomes (Qizi & Kobiljanovna, 2021).

For certain schools, the limited location of the school and the surrounding environment often limit the space for teachers to carry out learning that utilizes the school environment as a learning place and source. These limitations only provide one alternative model for teachers to

conduct learning inside the classroom with the textbook as materials, without utilizing the environment as a learning resource. The condition of the school and its surrounding environment should not be an obstacle to implementing Environmental-based learning. In the learning activities, teachers can utilize learning resources and media in the form of visual media, audio-visual media, and artificial objects about the environment. These documents can replace the learning media and learning resources about the environment (Mateer, n.d.).

Teachers have difficulty obtaining sources of information and learning media about the environment because these documents are not available in schools. To overcome this problem, schools can conduct an inventory and make documentation about the potential of a suitable environment to be used as a source and learning media. Teachers can involve students and work with school committees to create and collect documents about potential environments as learning resources and media (Marpanaji et al., 2018).

The problems mentioned above can hinder the implementation of learning. These problems can distance teachers or schools from learning models that use an Environmental-based approach. Learning in schools will only run conventionally by carrying out routine learning as it is done from time to time, without any innovation to improve the learning quality (Mupa & Chinooneka, 2015).

To develop teacher competence in preparing learning tools and provide opportunities for teachers to implement innovative learning models, the government should conduct workshops/training/education activities. Furthermore, to know the workshop results, the government must monitor and evaluate the activities in their implementation in their respective schools. To increase teachers' enthusiasm for developing innovative learning, the government needs to assign tasks to teachers to report on the best practical learning processes. The development of workshops/training of learning models has a function for teachers in increasing their insight and skills in the learning implementation (Talvio et al., 2016).

## CONCLUSION

Learning by utilizing the environment as a learning resource and media provides many opportunities for students to learn authentic materials. The Environmental-based approach values the environment as a learning resource to provide a meaningful learning experience for students. However, the facts in schools show that most schools have not applied the learning approach optimally in the learning. Teachers face many obstacles caused by internal and external factors to using the learning approach. Exploring and mapping teachers' problems is a strategy for seeking solutions to overcome these obstacles.

The exploratory study is the strategy to describe the problems and the causes as the basis for determining policies regarding improving learning quality. This finding is important for teachers as a reference in developing lesson plans and implementing learning. For schools and stakeholders, these findings are a basis for developing policies to improve learning quality. In addition, these findings also contribute to further research as a reference in developing theories and study methods.

## REFERENCES

Araghieh, A., Farahani, N. B., Ardakani, F. B., & Zadeh, G. N. (2011). The role of teachers in the development of learning opportunities. *Procedia - Social and Behavioral Sciences*, *29*, 310–317. https://doi.org/10.1016/j.sbspro.2011.11.244.

Arar, K., Kondakci, Y., & Taysum, A. (2019). The imposition of government education policy initiatives and school enactment: Uncovering the responses of school principals. *Journal of Educational Administration and History*, *51*(4), 295–300. https://doi.org/10.1080/00220620.2019.1643526.

Bell, L., & Stevenson, H. (2015). Towards an analysis of the policies that shape public education: Setting the context for school leadership. *Management in Education*, *29*(4), 146–150. https://doi.org/10.1177/0892020614555593.

Bloom, E., & VanSlyke-Briggs, K. (2019). The Demise of Creativity in Tomorrow's Teachers. *Journal of Inquiry and Action in Education*, *10*(2). https://digitalcommons.buffalostate.edu/jiae/vol10/iss2/5.

Casey, A., & MacPhail, A. (2018). Adopting a models-based approach to teaching physical education. *Physical Education and Sport Pedagogy*, *23*(3), 294–310. https://doi.org/10.1080/17408989.2018.1429588.

Cicek, V., & Tok, A. P. D. H. (2014a). Effective Use of Lesson Plans to Enhance Education in U.S. and Turkish Kindergarten thru 12th Grade Public School System: A Comparative Study. In *Proceedings of International Academic Conferences* (No. 0100192; Proceedings of International Academic Conferences). International Institute of Social and Economic Sciences. https://ideas.repec.org/p/sek/iacpro/0100192.html.

Cicek, V., & Tok, H. (2014b). Effective Use of Lesson Plans to Enhance Education in U.S. and Turkish Kindergarten thru 12th Grade Public School System: A Comparative Study. *International Journal of Teaching and Education*, *2*(2), 10–20. https://www.iises.net/download/Soubory/soubory-puvodni/pp10-20ijote_V2N2.pdf

Clawson, J. G. (2008). *Fundamental Elements in Teaching* (SSRN Scholarly Paper ID 911821). Social Science Research Network. https://doi.org/10.2139/ssrn.911821.

Cruess, S. R., Cruess, R. L., & Steinert, Y. (2008). Role modeling—Making the most of a powerful teaching strategy. *BMJ: British Medical Journal*, *336*(7646), 718–721. https://doi.org/10.1136/bmj.39503.757847.BE.

Davies, D., Jindal-Snape, D., Collier, C., Digby, R., Hay, P., & Howe, A. (2013). Creative learning environments in education—A systematic literature review. *Thinking Skills and Creativity*, *8*, 80–91. https://doi.org/10.1016/j.tsc.2012.07.004.

Dorovolomo, J., Phan, H., & Maebuta, J. (2010). Quality lesson planning and quality delivery: Do they relate? *International Journal of Learning*, *17*, 447–456. https://rune.une.edu.au/web/handle/1959.11/6722.

García-Carrión, R., Molina Roldán, S., & Roca Campos, E. (2018). Interactive Learning Environments for the Educational Improvement of Students With Disabilities in Special Schools. *Frontiers in Psychology*, *9*, 1744. https://doi.org/10.3389/fpsyg.2018.01744.

Iqbal, Md. H., Siddiqie, S. A., & Mazid, Md. A. (2021). Rethinking theories of lesson plan for effective teaching and learning. *Social Sciences & Humanities Open*, *4*(1), 100172. https://doi.org/10.1016/j.ssaho.2021.100172.

Khembo, E. (2020). *Guidelines for Teachers on the Implementation of the Revised Annual Teaching Plans (ATPs)*. 17. https://wcedonline.westerncape.gov.za/circulars/circulars20/circ18-20-Annexure%20A-Teacher%20guidelines.pdf.

Limbong, M. (2019). SWOT analysis in improving the quality of basic education at palm plantations in Indonesia. *Journal of Physics: Conference Series*, *1360*, 012030. https://doi.org/10.1088/1742-6596/1360/1/012030.

Lodge, J. M., Kennedy, G., Lockyer, L., Arguel, A., & Pachman, M. (2018). Understanding Difficulties and Resulting Confusion in Learning: An Integrative Review. *Frontiers in Education*, *3*. https://www.frontiersin.org/article/10.3389/feduc.2018.00049.

Malik, R. H., & Rizvi, A. A. (2018). Effect of Classroom Learning Environment on Students' Academic Achievement in Mathematics at Secondary Level. *Bulletin of Education and Research*, *40*(2), 207–218. https://eric.ed.gov/?id=EJ1209817.

Marpanaji, E., Mahali, M. I., & Putra, R. A. S. (2018). Survey on How to Select and Develop Learning Media Conducted by Teacher Professional Education Participants. *Journal of Physics: Conference Series*, *1140*, 012014. https://doi.org/10.1088/1742-6596/1140/1/012014.

Mason, H. D. (2019). Factors that enhance academic learning and study behaviours: A qualitative study. *Journal of Psychology in Africa*, *29*(1), 67–72. https://doi.org/10.1080/14330237.2019.1568087.

Mateer, G. D. (n.d.). *Using Media to Enhance Teaching and Learning*. Using Media to Enhance Teaching and Learning. Retrieved February 4, 2022, from https://serc.carleton.edu/sp/library/media/index.html.

Maulani, D. R. (2020). *The Analysis of Teachers' Lesson Plan and Its Implementation in the Classroom* [Skripsi, UIN AR-RANIRY]. https://repository.ar-raniry.ac.id/id/eprint/12155/.

Miranda, J., Navarrete, C., Noguez, J., Molina-Espinosa, J.-M., Ramírez-Montoya, M.-S., Navarro-Tuch, S. A., Bustamante-Bello, M.-R., Rosas-Fernández, J.-B., & Molina, A. (2021). The core components of education 4.0 in higher education: Three case studies in engineering education. *Computers & Electrical Engineering*, *93*, 107278. https://doi.org/10.1016/j.compeleceng.2021.107278.

Mupa, P., & Chinooneka, T. I. (2015). Factors Contributing to Ineffective Teaching and Learning in Primary Schools: Why Are Schools in Decadence? *Journal of Education and Practice*, *6*(19), 125–132. https://pdf4pro.com/view/factors-contributing-to-ineffective-teaching-and-learning-5d1d85.html.

Özerem, A., & Akkoyunlu, B. (2015). Learning Environments Designed According to Learning Styles and Its Effects on Mathematics Achievement. *Eurasian Journal of Educational Research*, *15*(61), 61–80. https://doi.org/10.14689/ejer.2015.61.4.

Parwati, N. N., Mariawan, I. M., & Suparta, I. N. (2019). The effectiveness of the implementation of environmental-based learning media toward the mathematical

problem-solving ability and the impact on students' nationalism attitudes. *Journal of Physics: Conference Series*, *1317*(1), 012123. https://doi.org/10.1088/1742-6596/1317/1/012123.

Prameswari, S. J., & Budiyanto, C. (2017). The development of the effective learning environment by creating effective teaching in the classroom. *IJIE (Indonesian Journal of Informatics Education)*, *1*(1), Art. 1. https://doi.org/10.20961/ijie.v1i1.11960.

Qizi, M. Z. A., & Kobiljanovna, S. M. (2021). The Significance of Teaching Independent Learning and Its Benefits for Students. *JournalNX - A Multidisciplinary Peer Reviewed Journal*, *7*(03), 354–358. https://media.neliti.com/media/publications/343124-the-significance-of-teaching-independent-49ad3971.pdf.

Sesiorina, S. (2014). The Analysis of Teachers' Lesson Plans in Implementing Theme-Based Instruction for Teaching English to Young Learners. *Journal of English and Education*, *2*(1), Art. 1. https://www.neliti.com/publications/192273/the-analysis-of-teachers-lesson-plan-in-implementing-theme-based-instruction-for.

Shumacher, S. L., Fuhrman, N. E., & Duncan, D. W. (2012). The Influence of School Culture on Environmental Education Integration: A Case Study of an Urban Private School System. *Journal of Agricultural Education*, *53*(4), 141–155. https://doi.org/10.5032/jae.2012.04141.

Straessle, J. (2014). Teachers' perspectives of effective lesson planning: A comparative analysis. *Dissertations, Theses, and Masters Projects*. https://dx.doi.org/doi:10.25774/w4-8swa-7371.

Suryawati, E., Suzanti, F., Zulfarina, Z., Putriana, A. R., & Febrianti, L. (2020). The Implementation of Local Environmental Problem-Based Learning Student Worksheets to Strengthen Environmental Literacy. *Jurnal Pendidikan IPA Indonesia*, *9*(2), Art. 2. https://doi.org/10.15294/jpii.v9i2.22892.

Talkhabi, M., & Nouri, A. (2012). Foundations of cognitive education: Issues and opportunities. *Procedia - Social and Behavioral Sciences*, *32*, 385–390. https://doi.org/10.1016/j.sbspro.2012.01.058.

Talvio, M., Berg, M., Litmanen, T., & Lonka, K. (2016). The Benefits of Teachers' Workshops on Their Social and Emotional Intelligence in Four Countries. *Creative Education*, *7*(18), Art. 18. https://doi.org/10.4236/ce.2016.718260.

Wulandari, S., Suwondo, & Haryanto, R. (2019). Implementation of Environmental Education Based Local Potential to Increase Environmental Knowledge Student. *Journal of Physics: Conference Series*, *1351*(1), 012054. https://doi.org/10.1088/1742-6596/1351/1/012054.

Yulianto, Y. (2021). The Needs of Training to Improve Teacher Competence in Preparing Society 5.0. *Technium Social Sciences Journal*, *20*, 275–286. https://heinonline.org/HOL/LandingPage?handle=hein.journals/techssj20&div=25&id=&page=.

Zhu, C. (2013). The effect of cultural and school factors on the implementation of CSCL. *British Journal of Educational Technology*, *44*(3), 484–501. https://doi.org/10.1111/j.1467-8535.2012.01333.x.