Teaching Strategy

by Adrie F. Assa

TEACHING STRATEGY OF ECOSYSTEMS IN JAKARTA FOR ELEMENTARY SCHOOL STUDENTS

Estrategia de enseñanza de los ecosistemas en Jakarta para estudiantes de escuela primaria

C. WIBISONO
https://orcid.org/0000-0001-8340-3312
chablullahwibisono@gmail.com
Batam University, Riau Islands, Indonesia.

A.F. ASSA
https://orcid.org/ 0000-0002-9729-7386
adrie.assa@ukrida.ac.id
Krida Wacana Christian University,Indonesia.

F.J. RUMAMBI
freddyrumambi@gmail.com
Institute Bisnis & Multimedia Asmi at Jakarta, Indonesia.

ABSTRACT

The aim of this study is to determine the factors that cause environmental degradation and ecosystem damage. Learning strategies for student knowledge about the ecosystem is a must. The research was conducted on students of SD Kalisah Jakarta. The results showed that: (1) Students' knowledge of ecosystems taught by outdoor strategies was higher than indoor strategies, (2) Understanding of the ecosystems felt by students in terms of utilization, maintenance, and development which guaranteed sustainable environmental management. Learning about ecosystems allows students to equip themselves with knowledge and information on maintaining the balance of the ecosystem, both now and in the future.

Keywords: Learning strategy, ecosystem, student, maintenance.

RESUMEN

El objetivo de esta investigación es determinar los factores que causan degradación ambiental y daño a los ecosistemas. Las estrategias de aprendizaje para el conocimiento de los estudiantes sobre el ecosistema es una necesidad. La investigación se llevó a cabo en estudiantes de SD Kalisah Jakarta. Los resultados mostraron que: (1) El conocimiento de los estudiantes sobre los ecosistemas enseñados por estrategias al aire libre fue mayor que las estrategias de interior, (2) Comprensión de los ecosistemas que sienten los estudiantes en términos de utilización, mantenimiento y desarrollo, lo que garantiza una gestión ambiental sostenible. Aprender sobre ecosistemas permite a los estudiantes equiparse con conocimientos e información sobre cómo mantener el equilibrio del ecosistema, tanto ahora como en el futuro.

Palabras clave: Estrategia de aprendizaje, ecosistema, estudiante, mantenimiento

INTRODUCTION

Development is a conscious effort carried out by the government or society as a group or individually, carried out continuously or sustainably by utilizing natural and human resources as its main potential. The development aims to improve the quality of life through life structure changes, which become the social, political, economic, and cultural aspects (Sumarwati et al.: 2020, pp. 11-32).

Environmental pollution and ecosystem damage are urban phenomena that are negative impacts of regional development. The higher the economic activity and regional development, the more activities carried out by its citizens or the increase in population mobility will increase the burden on the environment, According to a report from the DKI Jakarta Province Regional Environmental Management Agency on the Status of the Regional Environment for the Province of DKI Jakarta in 2018, states that; issues related to the environment, including (a) Green open space, (b) Garbage, (c) Air, water and toxic, hazardous materials (B3), (d) Floods, and (e) Amount of illegal settlement (Kamil et al.: 2020, pp. 101-111).

Environmental destruction and damage to ecosystems on land and sea are examples of the negative impacts of development activities that are more concerned with economic growth without considering the environment's carrying capacity. Environmental and ecosystem damage will indirectly affect changes in the structure and structure of social, economic, and cultural life (Hill & Nelson: 2011, pp. 393-408).

One of the reasons why the community, including elementary school students, often directly or indirectly damages ecosystems is a lack of knowledge about ecosystems. As the next generation, students need to be educated in order to understand the concept of ecosystems. Therefore, students need to get environmental education from the start to instill and shape their environmental awareness (Jeladze et al.: 2017, pp. 32-55). Education on ecosystems has been carried out, but the results have not thoroughly influenced people's behavior; this can be seen in the destructive activities that are still ongoing. This shows that the ecosystem's educational objectives have not been achieved, meaning that students have not received the teacher's information.

Information that does not reach students can be caused by various things, including delivering information or learning strategies and learning resources. Learning outcomes are closely related to the learning process. Education is expected to be the right place to instill students' perceptions and awareness about the environment, factors that cause environmental degradation and ecosystem damage, and benefits for life on Earth today and for future generations.

An ecosystem is a unit that includes all organisms (communities) in a area that influence each other in their physical environment so that energy flows lead to food structures, biotic diversity, and clear material cycles (exchange of materials between living and non-living parts) in the system (Cutter-Mackenzie & Smith: 2003, pp. 497-524). Thus, the basic concept of ecosystem emphasizes understanding a system of reciprocal relationships between living things and non-living things in every environment.

When viewed from the arrangement of the ecosystem is divided into 4 (four) components, namely: (1) Inanimate materials (abiotic, non-biological), (2) Producers, (3) Consumers, and (4) Decomposers (Tivy and are), 1981). Inanimate materials are physical and chemical components consisting of soil, air, water, sunlight, etc., which are the media for life to occur. Producers are autotrophic organisms which are generally chlorophyll plants that synthesize food from simple inorganic materials. Consumers are heterotrophic organisms such as humans and animals that eat other organisms. Meanwhile, decomposers are heterotrophic organisms that decompose organic materials from dead organisms, for example, fungi.

To achieve these learning objectives, it is necessary to make learning strategies under students thinking patterns. To be more meaningful, the learning strategy must be liked by students; students can play and learn. Besides that, the teaching material must provide much information about the ecosystem and its factors. Most importantly, through this teaching material, ethics and morals can be instilled in students.

The learning implementation consists of five models, namely: (1) the exposition model, (2) the behavioral model, (3) the cognitive-developmental model, (4) the interaction mode, and (5) transaction model (Fonseca et al.: 2018, pp. 229-245).

Nine sequences of instructional activities, namely; (1) provide motivation or attract attention. (2) explain instructional objectives to students, (3) remind the prerequisite abilities, (4) provide a stimulus to the subject matter, (5) provide learning instructions, (6) generate student performance, (7) provide feedback, (8) assess

student performance and (9) improve memory and stabilization (Gros & García-Peñalvo: 2016, pp. 28-46).

In choosing an instructional strategy, it is necessary to consider the teacher's strengths and experiences, students' needs and experiences, the content of the material being taught, the learning objectives, and the nuances (O'Reilly et al.: 2019, pp. 1344-1351).

The indoor approach is a teaching message in the form of knowledge, insights, or skills that the teacher thoroughly processes before being conveyed to students. This approach is the most popular, and many teachers teach the environment and other subject matter. In addition to being easy to present, it also does not require much media. However, this approach depends on the teacher's ability because it has a full role in the class. The teacher's expertise in mastering the material, the audience, and the language skills and intonation determine this approach.

The learning approach in the classroom is a conventional learning approach in which in one class, there are many students with a teacher in front of the class facing the students. Classes with large numbers of students and intelligence are assumed to be homogeneous, not allowing every student to get enough attention from the teacher. Lack of attention received by each student can cause students to be less motivated and feel not involved in the learning process, become passive, and become bored. Learning for these children becomes less effective, resulting in learning objectives not being appropriately achieved.
The methods commonly used in the classroom, which are widely used, are the following methods: (1). Lecture Method, (2). Discussion Methods, and (3). Recitation Learning Assignment Method.

The learning approach outside the classroom is a learning process outside the classroom after first receiving direction from the teacher. The outdoor approach is the fundamental conception of teaching in the natural surroundings in an objective, factual manner; students are used as the starting point for learning efforts (Mccagg & Dansereau: 1991, pp. 317-324).

Humans live in a particular environment and must make the best use of the environment, both in daily life and in the human person's development. In everyday life, the natural surroundings and the human environment have a significant influence on students. Therefore, in education and learning, it is necessary to take advantage of the natural environment around. The outdoor approach provides students opportunities to develop concepts based on tangible things. In learning, children are more active and creative.

Individual experiences occur in interaction with the environment; setting the learning environment can be done indoors and outdoors in carrying out learning activities. The behavioristic approach considers the human soul to be passive, controlled by external stimuli in the environment (Jackson et al.: 1994, pp. 233-257).

In learning, there are principles so that the learning process is more meaningful, namely that every child must be endeavored to participate in an active environment, increase interest, learning is done in the process of adaptation, exploration, and discovery, learning needs to interact with the environment as stated by Dewey in learning must be centered in real life which includes: (a) is a manifestation of the personal desires that exist in individuals (b) allows social interaction to take place and the development of atmosphere control abilities, (c) is problematic so that it stimulates more in-depth exploration.

Knowledge is all that humans know about a particular object. Knowledge is collected by science to answer daily life problems humans face and offer various conveniences (Ichsan et al.: 2020, pp. 227-237).

Knowledge aspects are classified into three groups, namely: 1). Knowledge of specific matters includes terms and facts, 2). Knowledge of dealing with specific problems includes habits, trends, classifications, categories, methods, and 3). Knowledge of universal rules includes principles, theory, and structure (Dziabenko & Budnyk: 2019, pp. 49-56).

In Bloom's Taxonomy, knowledge can be classified into (1) knowledge of specific things, which includes knowledge of special terms and events, (2) knowledge of ways and tools related to specific matters consisting of conventional knowledge, knowledge about direction and sequence, knowledge of general and abstract matters in specific fields consisting of knowledge of principles and generalizations and knowledge of theory and structure (Dziabenko & Budnyk: 2019, pp. 49-56).

Factors Determining Digital Learning Ecosystem Smartness in Schools discusses the factors determining a school's digital learning ecosystem smartness. Data was collected from 52 schools in Ghana, Georgia, and Estonia. Interviews and observations were transformed into the quantitative categories and compound variables using the grid-based approach. It was founded on three distinctive digital learning ecosystem types that

possible developmental stages in the ecosystem. The most dominant compound variables in the first function were the top-down external provision of digital resources and ICT incentives. The second function characterizes by the bottom-up proactiveness of the schools. Path modeling between the compound variables revealed the growing complexity in connectivity among the mediating, transformative, and flow components that determine the learning ecosystem's smartness. Such interconnected components form specific fitness niches co-created in organizations through collective effort, making the school ecosystem responsive to the socio-technical regime and externally provided opportunities.

By knowing, hopefully, that the behavior of students when interacting with the environment can enjoy, utilize, and maintain its sustainability. This condition encourages researchers to find more effective alternative learning strategies to increase knowledge about ecosystems, especially for elementary students. The research aims are: (1) Analyzing ecosystem learning strategies for elementary students, (2) Analyze knowledge about ecosystems that elementary school students can understand.

METHODOLOGY

The research was conducted in DKI Jakarta, at Public Elementary School 07 in Kalisari Village, East Jakarta. Research activities until data analysis were carried out for nine months, from March to December 2019. This research approach is a case study where a case study explores a system or a particular case from time to time involving resources rich in related data and information. This study used the Miles and Huberman model to analyze the data, whose analysis was carried out continuously until the data was saturated. Data collection was carried out employing field observations and in-depth interviews as primary data with students and teachers. While data collection in the form of documents, books, and journals as secondary data.

RESULTS

Humans play a role in exploiting their environment for various purposes. Even humans use plants and animals for their pleasure and satisfaction. Humans, as managers of natural resources, will always increase their environment's carrying capacity to meet their needs. Organisms, populations, communities, and ecosystems can return to their original state from unfavorable external influences. In other words, the ecosystem is stable because of balance and resilience (Çokadar & Yilmaz: 2010, pp. 80-89).

Human action on ecosystems often changes the balance and reduces the stability of the ecosystem. However, natural law implies that the integrity of an ecosystem's carrying capacity is guaranteed if the interventions that occur are still within tolerance limits that allow it to return to customary dynamism and balance as before. If excessive use exceeds the tolerance limit, a shock will arise that may not be repaired (Brody: 1994, pp. 421-435).

Environmental problems today are no longer just a matter of pollution, and environmental damage but are an integral part of development issues and are discussed in demographics and natural resources. Economy, politics, social, culture, and even in the world of business and trade become: cross-sectoral, multidisciplinary, involving the interests of all levels of society. Environmental problems are local or national problems and global problems that affect international trade and affect the sustainable development of the world economy (Biswas et al.: 2005, pp. 363-392).

Human development is influenced by factors, namely First, the maturation of natural growth, a process typical to all life. Second, the effect on the growth of organisms has much influence on the environment's inherent properties in the living and growing individual. Since individuals are born and have a human form, their growth is influenced by the environment. Each person is born with a definite potential or ability to be developed, and its development is influenced by their family and environment (Beerwinkle et al.: 2018, pp. 2041-2064)

Schools should be places where students live freely, and their freedom is not merely planned but is spiritual freedom that grows from within. A school is mostly a place that students consider as their home and education that parents want students to (Bahar: 2003, pp. 55-64)

Chiras stated that the environment shows the freedom of everything, including water, air, land, including plants, animals, and micro-organisms that inhabit the land. Interaction between components. Human impacts are a matter of the reciprocal relationship between the population and human natural resources as a threat to human welfare and life. There are three major parts of the environmental crisis: a growing population, consuming all-natural resources, and pollution (Agusta: 2018, pp. 10-17)

According to Chiras, throughout history, humans have used their knowledge to control the environment, shape it and enjoy it to be successful and in harmony with their lives. However, our understanding of monitoring and safeguarding the environment does not always produce satisfactory results. Water disruption, polluted clogged rivers, rain, people, outbreaks of disease are the results of our activities that were not anticipated. Because it requires special attention in carrying out activities so that they do not cause new consequences, if there has been environmental damage and we are aware of it, efforts will be made to improve the environment and improve the ecology, namely to build a balance through biological conservation, which is a rehabilitation drug from ecology (Harlow et al.: 2018, pp. 224-246)

School-age children are those between 6-12 years of age and attend educational programs in primary schools. According to Piaget, elementary school-aged children (6-12 years) are included in the cognitive development of children in the concrete operational stage, which has the following characteristics: (1) starting to view the world objectively, shifting from one aspect of the situation to another reflectively and seeing the elements Unified elements simultaneously, (2) begin to think operationally, for example, the group of elements becomes a whole and can see the relationship between elements and the whole back and forth, (3) use operational thinking to classify objects.

a) Outdoor Learning

In this step, the teacher and students travel around the school on objects that are the center of attention that has been determined from the environment around the students. This activity will allow children to actively see, ask, feel, discuss, and think using all the child's senses and intellect about something being observed. The center of students' interest in the need for food with the part of the plant is eaten by the fruit, leaves, stems, or roots. The roots.

1. Association (processing). After the observations are carried out, and association activities are carried out, namely processing the results of observations by associating with these plants' associations such as humans, animals, understanding plants, the need for water, air, sunlight, and fertilizers.

2. Expressions (disclosures). In this step, the teacher guides students to reveal the objects that have been observed and processed. This expression is done in storytelling and drama, drawing, or painting. Disclosure using language is referred to by Decroly as an abstract expression, while expressions using the means or object are directly referred to as concrete expression. Students will prefer concrete expressions to abstract expressions.

Environmental learning in elementary schools needs learning activities that encourage the attitudes above, such as outdoor activities, real activities outside the classroom in nature that are meaningful, concrete, based on experiences, which can motivate students. Outdoor learning shows a tendency: (a) Environmental learning is more exciting and fun, (b) Learning becomes more by the nature of the environment in elementary school, (c) Students feel the benefits of the environment in daily life, (d) Encourage children's feelings of success and (d) Stimulate scientific attitudes rather than indoor learning.

Based on the description above, the benefits of the "outdoor" approach in environmental learning are: (a) Preventing verbalism because students learn more about environmental concepts in a concrete and real way. According to the level the development of elementary school-age children and the characteristics of

environmental studies that are carried out through process skills, (b) The outdoor approach can generate spontaneous attention from students who encourage them to carry out activities wholeheartedly, (c) Students tend to be more active and creative because they are always involved and participating in activities in the field, (e) The materials studied have practical value for students because what they learn is what they encounter every day and are directly useful in life, (f) Students are made subjects to the natural environment around because In the learning process, students are encouraged and stimulated to recognize, understand, maintain and develop the natural environment around, in turn, the ability to think, feel, act, skills and ecological awareness of students develop in an integrated manner.

The learning approach outside the classroom (outdoor) is delivering information to students outside the classroom by direct observation of objects and phenomena in the environment.

In this study, the material contained in the module was class V elementary school science subject matter. The module was given to each student, and the teacher acted as a facilitator in this activity. The teacher only plays a role when opening and closing the lesson and explaining how to use the module in learning activities. In this study, students are required to be active in studying the module, while the teacher only explains the module's use and not the subject matter. If the teacher meets students who have difficulty understanding the subject matter, the teacher only suggests looking for answers on the previous page or the next page.

Before the experiment was carried out, the teachers involved in this study were given a short training covering the research objectives to be achieved, how to open and close the class and how to respond to student questions. Thus during the experiment, they have the same in acting. Teaching and learning activities in the classroom are carried out naturally without worrying about being judged by the researcher.

Each sample class consists of male and female students, one class gets indoor learning strategies, and another class gets outdoor learning strategies. With indoor learning as a control in this study and students who received outdoor learning were the classes that received treatment in this experiment. All learning activities continue through: the preliminary stage, the core activity stage, the closing stage, and the evaluation. The difference is that for students whose learning is outdoor, the material's presentation is carried out while taking a walk by looking at real or real objects. In contrast, those in indoor learning use objects without pictures.

The research conducted was a summative test assessment so that teachers could use it as material in filling out the list of grades on the report card. The score is obtained through a written test in the form of a test sheet with a choice of true-false associations. Thus the teacher does not feel disturbed by this experimental activity.

b) Indoor Learning

Module Teaching is a form of classical teaching in a large and dense classroom with the guidance of a teacher who discusses specific subject matter has several weaknesses. Among these weaknesses is seeing students as having the same abilities, using the same teaching and learning process.

The form of teaching does not suit the needs and personality of every student. There are always students who are quick to understand lessons in the classroom, students who on average understand lessons, and children who are slow to understand lessons. In a classical teaching system that uses large lecture halls, the teacher cannot provide individual assistance and does not even know students one by one. The teaching system should allow providing teaching opportunities for a large number of students and at the same time provide individual teaching.

Among the various forms of individual teaching, module teaching is an alternative that can be used because it can overcome the weaknesses of the classical teaching system. Even educators who strongly believe in the efficacy of teaching modules predict that in the future, all disciplinary and interdisciplinary curricula will be presented in the form of modules that can provide programs that suit the needs of each student.The module as an individual teaching model is expected to change this situation into a teaching and learning situation that further enables students to read and learn to solve problems on their own under the guidance of a teacher who is always ready to help students who are experiencing difficulties.

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Also, the module turns out to be able to help in the current world of education, including: (1) problems related to equitable distribution of education, (2) problems related to educational relevance, (3) problems related to educational problems, and (4)) problems related to educational efficiency.

Through the education equality module, it can be done optimally. With the module, children can learn on their own without having to depend on the teacher. Also, through the module, children can learn without being bound by time and place.

The module's arrangement is made so that the teaching materials will have relevance between the subject matter, the material objectives, and the evaluation tools. Modules are also arranged based on real needs in the community. For that, the contents will always be by the times.

In the classical teaching system, students are very dependent on the teacher as a guide. Meanwhile, in the module teaching system, students learn without being bound by the teacher's condition because the learning materials prepared in the module have been arranged in such a way. By looking at the instructions contained in the module, students can work alone. Thus the quality of education can be increased without having to depend on teacher conditions.

Through the module, students can learn on their own according to their abilities. Students can work and study with the module system without being bound by place and time, such as school education. Students can also learn at their own pace without being bound by their friends' lack of abilities.

The definition of a module, according to Engkoswara, is a unit of the smallest teaching program which in detail outlines: (1) General instructional objectives that are supported later, (2) Topics that will be used as the base of the teaching and learning process, (3) Specific instructional objectives that students will achieve, (4) subject matter to be studied and taught (5) the position and function of the unit (module) in a broader program unit, (6) the role of the teacher in the teaching process, (7) tools and resources which will be achieved, (8) New learning activities carried out and lived by the students sequentially, (9) Worksheets that must be filled in by students and (10) an evaluation program that will be carried out during the learning process.

The purpose of teaching modules is to open opportunities for students to learn at their own pace. Another goal is to provide opportunities for students to learn in their way. Also, the module provides a choice of several topics in a particular subject. Finally, the module system's objective is to allow students to recognize their strengths and weaknesses and improve these weaknesses through the remedial module.

There are six steps in composing the module: (1) formulating goals, (2) compiling a post-test, (3) analyzing entry behavior, (4) selecting media, (5) trying out, and (6) evaluation.

The step of formulating objectives is a specification that students should own after completing the module. Meanwhile, the post-test is arranged to find out whether students have succeeded in mastering the lesson objectives. At the same time, entry behavior is an initial ability that students must have before studying modules. This entry behavior is often referred to as prerequisite knowledge. In the media selection step, the media suitable for the subject matter must be selected because by selecting the right media, students can be helped achieve the goals outlined. In doing the module, it is also necessary to do a try-out that aims to get a valid module to suit the students and the abilities they expect. The last activity, namely evaluation, aims to determine the effectiveness of the module.

Even though the module is an individualized teaching system, it does not mean that learning activities are without teacher guidance. To achieve successful module teaching, the teacher's function is also essential.

Regarding the role and duties of the teacher in the module teaching system, it can be formulated as follows: (1) When the module teaching system starts, the teacher must learn all the problems regarding the implementation of the module (2) At the time of the learning process the teacher must be creative under the nature of the learning process with the module (3) When students have finished learning activities, the teacher must check the children's mastery of the material in the module content, give tests to children who have finished the activity sheets and worksheets (4) When the students have carried out the final test, the teacher

must sort the students according to the results test and assign assignments that students must carry out by the test results.

As an individual teaching system, the learning activities and student activities are different from the classical teaching system. Students' active role and student motivation to participate in learning activities are necessary for the module system. The steps that students must go through when learning with modules are: (1) Studying student activity sheets, (2) doing assignments on student sheets, (3) matching work results with worksheet keys, (4) working on sheets test, and (5) match the test results with the test sheet key.

From the description above, a well-structured and systematic module will be able to provide benefits for students, including: (1) providing fast and large feedback, (2) complete mastery of the subject matter because the assessment of the module does not use a standard curve, but all students are encouraged to achieve maximum results, (3) the module has clear goals so that students' efforts are directed to achieve it immediately, (4) it can be adjusted to student differences which allow students to complete material according to their abilities, (5) allows for collaboration among students, (6) allows remedial teaching to be carried out, which is to allow students to correct their weaknesses, mistakes or deficiencies based on the evaluation. Meanwhile, for teachers, the module teaching system also provides various advantages: (1) frees teachers from routines because all subject matter and evaluation tools are available in the module, (2) prevents redundancy, because the modules have been systematically arranged and have high validity, then the module can be used at various schools or levels of education. Therefore there is no need to arrange similar modules by related parties, (3) the module teaching system provides the opportunity for teachers to provide individual assistance for students who need guidance.

DISCUSSION

Indoor learning strategy in the classroom is a learning strategy that is still generally applicable in Indonesia today. In the implementation of learning like this, several things should be noted about learning outcomes, namely: (1) teachers are more dominant in their role, (2) teachers have more time to stand in front of the class, (3) teachers face dozens of students with heterogeneous intelligence levels, (4) instructional media is lacking, (5) students must sit in an orderly manner and (6) students are not allowed to talk to their friends.

The teacher has a more dominant role in the classroom, namely delivering subject matter with the lecture method for most lesson time. In this case, students only hear, see pictures, imagine examples given by the teacher, and take notes. Almost throughout the lesson hours, students are passive, so students who are less motivated to learn feel bored and pay less attention to lessons.

For critical students, there is the possibility of being less satisfied if the questions are not answered satisfactorily. Simultaneously, some teachers do not seem to like answering questions or even show displeasure towards critical students. Conditions like this will cause students to become more passive so that to face tests, students only learn from what is in their textbooks or notebooks.

In delivering lessons, the teacher is mostly in front of the class so that only students who sit at the front of the class get attention, while students who sit at the back get less attention. This lack of attention causes students to be passive so that learning objectives are less successful. Teachers face dozens of students with various family backgrounds and intelligence levels with the same treatment. In this case, students as individuals get less attention. Moreover, teachers always prioritize smart students. So students whose intelligence is moderate or lacking feel neglected to make them less enthusiastic about learning.

The available instructional media are generally still very minimal; students only receive information verbally. The experiences he gets in the classroom are just abstract experiences. Matters concerning smell and taste are simply described without experience.

Students in the classroom must always sit in an orderly manner, not talking to their friends. Children of this age restrain their movements to feel bored quickly or divert their attention not to get bored.

The results of research conducted on grade 5 students proved that knowledge of the ecosystem was better for students who studied outside the classroom. Thus, overall knowledge about the ecosystem of elementary school students taught with outdoor strategies is higher than indoor. This is because students experience firsthand the experience of seeing, touching, smelling, and hearing the nearby ecosystems.

The results showed that a person's mental abilities could be improved through environmental stimuli. The more stimulated the brain is by intellectual activity and environmental interactions, the more links will be made between cells. Outdoor learning strategies encourage active students to allow each student to carry out active exploration and the teacher acts as a facilitator. Thus it can be assumed that the knowledge about the ecosystem of elementary school students who are taught outdoor strategies is higher than indoor.

In outdoor learning, students see real objects by seeing and touching them. Students will remember more efficiently when compared to students who only hear descriptions of those objects without seeing real objects. The more various objects are seen, the more examples support and make it easier for students to remember what they have learned. The classroom's learning atmosphere is freer and more familiar with the teacher to discuss with fellow students and with the teacher freely. An atmosphere like this will be a fun learning atmosphere and motivate students to get to know the object more. The environmental conditions are fresher, the air is not too stuffy, making students feel less tired.

The knowledge of elementary school students who receive outdoor learning where learning resources are diverse and the environmental conditions are conducive as described is thought to be better than the knowledge of elementary school students who receive indoor learning by just sitting and listening to descriptions from the teacher standing in front of the class, even though occasionally there is a picture of the object being displayed.

Understanding the ecosystem felt by students in terms of use, maintenance, and development further ensures sustainable environmental management. Learning about ecosystems allows students to equip themselves with knowledge and information on maintaining the balance of the ecosystem, both now and in the future.

CONCLUSION

Based on the research results, it can be concluded as follows: if you want to increase knowledge about elementary school students' ecosystems, it is necessary to consider an effective teaching strategy. Teaching using the outdoor strategy compared to the Indoor strategy is more effective for studying the ecosystem using outdoor learning. A learning strategy which is a combination of the sequence of learning activities, learning media, and the time used in the learning process can be distinguished from other learning strategies, among others when different in media use and differences in methods have a different impact on children Provide the media and learning resources needed. Media and learning resources are tools in order to achieve the goals of education. The availability of these tools allows students to gain a concrete, deep and broad learning experience. With an outdoor strategy, students can see and try for themselves the application of knowledge, know the advantages and disadvantages of innovation and show the direct effects of treatment in the field. Through an outdoor strategy between teachers and students, learn and share actively during the learning process.

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BIODATA

A.F. ASSA: Lecturer in Management Study Program, Krida Wacana Christian University, Faculty of Economics and Business, Office of the Faculty of Economics & Business, Lobby Building E, 1st floor, Jl. Tanjung Duren Raya No. 4, West Jakarta 11470, Indonesia. Mobile phone: + 62813-1620-0777, Email: adrie.assa@ukrida.ac.id.

F. J. RUMAMBI: Lecturer in Economi Faculty of Institute Bisnis and Multimedia Asmi- Jl Pacuan Kuda No 1-5 Pulo Mas Jakarta. Email freddyrumambi@gmail.com.

C. WIBISONO: NIDK / Rank Lecture : 8862690019 / Professor of Sharia Economics; Place / Date of Birth: Kendal / November 10, 1953; Gender : Male; Marital Status: Married, four (4) Children; Wife Name: Hj. Ani Yuana; Address: Jl. Kartini V No. 50 Sei Harapan, Sekupang, Batam City, Indonesia; Mobile phone: +62811700503; Email: chablullahwibisono@gmail.com; Current Job: Rector of Batam University, Lecturer S1, S2 and S3 in Batam University. Expert DPRD Riau Islands Province, DPS SRB States Madani; Office address: Rectorate, University of Batam, Batam, Indonesia.

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