Role of Teachers in Supporting Ecosystem Learning During a Pandemic

Yonarlanto Tembang, Ratna Purwanty, Lay Riwu, Sadrack Luden Pagiling

ABSTRACT

This study aims to describe learning ecosystems during the COVID-19 pandemic in fifth grade students of YPPK Santo Tarsisius Biankuk Merauke elementary school, where almost all students cannot participate in online learning (DARING) due to limited communication media. The research method used is qualitative with a case study approach. Collecting data through interviews, observations, and documentation with descriptive data analysis. Data analysis techniques consist of data reduction, data presentation, and drawing conclusions. The results of this study show (1) Ecosystem learning during the COVID-19 pandemic really helps students understand the components of the ecosystem, although it is very limited; (2) The activeness of students in completing report assignments looks good; and (3) the role of teachers during the pandemic period includes mentoring and motivators.

Keywords: ecosystem learning, pandemic covid 19, elementary school students

1. INTRODUCTION

Coronavirus Disease 2019 or COVID 19 has affected all aspects of life, including the education aspect. In a pandemic condition, the role and position of the educational aspect is very crucial for all existing education, the policies being carried out are none other than to break the chain of the spread of Covid 19 where students can act as carriers and spreaders of disease without symptoms. The consequence of closing educational institutions physically and replacing them with learning from home as government policy is a change in the teaching and learning system [1]. Student school managers, parents and of course teachers must migrate to an online learning system that requires a network that supports the achievement of the expected learning [2]. This is certainly felt heavy by educators and students, especially for educators, where teachers are led to be more creative in delivering material through online learning media so that this educational institution is not closed because of this epidemic. In the United States, for example, the state of Arizona has issued a “Pandemic Preparedness” guide that includes online learning as a solution for educational institutions. According to [3] in the subsection "Continuity of Education Instruction" it has been emphasized that it is important to maintain learning, and to involve students in constructive activities when they are not in school.

Studying at home using online media expects parents as role models in assisting children's learning to be able to change attitudes [2]. This pandemic period can be said to be an opportunity in the world of education, both using technology in line with industry 4.0, as well as parents as mentors and teachers in student learning. The current pandemic period is not only teachers or lecturers who are the determining milestones in achieving good education, but parents are the key to success in advancing education during the current pandemic, the involvement of parents at home will determine the success of their children in understanding the concepts and materials taught, given by the teacher through assignments given through online applications or in person [4].

Parents have an obligation to educate their children as done by [5] stating that the role of parents in determining student learning achievement is very large compared to students who work alone without the help of others. However, not all children have parents who can support their children in the learning process and want to see their children progress and compete with their friends [6]. Based on observations made at SD YPPK Santo Tarsisius Biankuk Merauke, it was found out that the learning
process carried out was a learning process outside the network or OFFLINE before schools reopened, schools were reopened due to special requests from class teachers to school principals related to students' abilities. In doing the tasks given is very low and does not match the questions given. Therefore, the principal directly met with the Head of the Merauke Regency Education and Culture Office and told the obstacles faced by students so far so that schools could be opened by following the applicable protocol.

YPPK Santo Tarsisius Biankuk Elementary School Merauke is a school located on the outskirts of Merauke City where almost 100% of the students are local people around the school so there needs to be special actions to be able to improve students' abilities in terms of knowledge even during a pandemic like this [7]. According to research conducted [8] stated that online learning and face-to-face learning are not much different, both do not experience significant differences in aspects of skills (psychomotor) and attitudes (affective). As it is known that face-to-face learning is carried out on ecosystem materials, students are invited to go out and observe the ecosystem in the surrounding environment so that students can be skilled and write down their observations in the reports that have been provided.

Ecosystem learning that is carried out during a pandemic like this is nothing but to increase students' knowledge about the material because if it is carried out online students cannot answer the challenge due to lack of adequate facilitation and support from parents who do not always pay attention to their children every day because of their interests, personally, to earn a living. Most of the parents at SD YPPK Santo Tarsisius Biankuk are fishermen, hunters of wild animals in the forest and farmers, so there is no time to motivate and guide their children when doing the assignments given by the teacher. Therefore, based on the description of the problem, the purpose of this study is to describe and explain how ecosystem learning carried out during this pandemic can work well and the teacher's role as a motivator can work well in accordance with the expected goals.

2. METHOD

The research used is qualitative research According to [9] Qualitative research is an implementation procedure to produce data in the form of descriptive or verbal language, or political procedures. The type of research used is case study. This activity is carried out in schools from September to the end of October 2020. The presence of researchers in the field acts as the main instrument in data collection or a key instrument because researchers provide all the equipment used by teachers until the action stage takes place. The main data collection techniques for this survey are interviews, observation and documentation [10]. The data collection technique used to analyze the search data uses an interactive model from Miles and Huberman. This study uses triangulation to test validates data. The triangulation method used is method and source triangulation by examining interview notes, action observations and document records from various data sources. The sample of this research is the result of student scores during offline learning at home which is done by students and parents. For more details on the case study analysis data, see the following chart.

This study is a type of mix-method. [17], mix method is a combination of quantitative and qualitative methods used at once in a research activity so that the data obtained is more valid and objective. [18] qualitative research is the collection, analysis, interpretation of comprehensive narrative and visual data to gain insight into a particular phenomenon of interest.

![Figure 1. Research flow [5]](image)

3. RESULT AND DISCUSSION

Based on the results of this study, the teacher's role in supporting ecosystem learning during the pandemic for fifth grade students at SD YPPK Santo Tarsisius Biankuk Merauke, namely (1) Ecosystem learning during the COVID-19 pandemic really helps students understand the components of the ecosystem, although it is very limited; (2) The activeness of students in completing report assignments looks good; and (3) the role of teachers during the pandemic period includes mentoring and motivators. These results were obtained based on observations during the learning process and documentation of student work and student reports during learning in the classroom and outside the classroom. The results of this study are as follows.

A. Ecosystem Learning during the Covid 19 Pandemic Very helpful for Students

Learning that is carried out face-to-face on this ecosystem material makes students very helpful. The teacher's contribution in learning is to approach and
provide assistance specifically to students, especially considering the current situation, the lack of face-to-face meetings conducted by teachers makes it very difficult for students to understand the concepts in each material provided. Students are only given assignments to do without providing solutions or examples to work on so students are very difficult to work on, many of the students work by searching the internet without knowing whether or not the questions they are working on are correct and have answered the questions given.

Face-to-face learning that is carried out is a solution to overcome the problems experienced by students during this pandemic [11]. The implementation of learning carried out by teachers is to guide students who are less able to understand ecosystem material by providing an example through books or pictures that have been provided by the teacher. Implementation with ecosystem materials is very helpful for students. The permission letter given by the principal to the teacher to carry out ecosystem learning is very useful where students are not fully in the classroom but students do a lot of learning activities outside the classroom by observing every process given by the teacher. Face-to-face learning given by the teacher for approximately two weeks, to provide children's understanding of the importance of learning ecosystems and is taken seriously by children, because children's boredom with the tasks given makes children feel bored at home during learning at home.

Learning carried out by involving students out of class and directing students to observe an object [12] in the pool makes students understand more clearly the material about ecosystems where students are directed to observe all objects in the pond to find out material about ecosystems. The teacher said that the ecosystem in the pond is an inseparable part and depends on each other. For example, fish and water are inseparable because without water fish cannot live, like other living things such as lotuses that expect water intake so that they can survive and survive on the surface of the water.

The teacher also invites students to observe the garden ecosystem in the school environment. They feel very happy to participate in learning because students directly see the object they want to learn. Students write down all what they have seen through joint observations with their group friends and present it in front of the class. Ecosystem learning taught by this teacher makes students very happy to take part in learning even though during a pandemic like this, the results of this learning are very good for students.

### B. Student Activeness in completing Report Tasks Looks Good

The learning done by teachers so far is learning outside the network or OFFLINE, namely by giving assignments to students to be done at home and completed together with parents, without a clear explanation from the teacher to students so it is very difficult for students to complete them. This is what makes the intention of teachers and schools to carry out face-to-face learning on a limited basis by following all the protocols set by the government by always washing hands, using masks when indoors and not gathering during group discussions. The groups were divided into 8 groups consisting of 2 students in one group with a total of 17 students. All learning processes carried out by teachers have been planned in the lesson plan implementation plan.

The implementation of learning carried out by teachers is mostly carried out outside the classroom, why, because it avoids crowds in small rooms so that health protocols are maintained. This makes students feel happy with the lesson. Students' activities in observing something are clearly seen when students ask the teacher about whether the living things in the pond are interdependent with other living things, the teacher responds to these questions and explains to all students to understand the material being observed. Student activity continues when one student writes down the contents of his report and another student observes and explains to fill in the questions on the student worksheet as evidence that students observe and write about the contents of the material from the ecosystem. Student activity is also seen when listening to the teacher's explanation of biotic and abiotic material and writing it down in group worksheet reports according to what has been observed. The teacher also directs students to go around the school environment and observe food chains and food webs in garden ecosystems, students observe the relationship between banana plants, snakes, birds attached to bananas and write them on student worksheets.

The teacher asks all groups to observe the ecosystem in the pond, then the teacher explains the various abiotic and biotic ecosystems in the pond after that asks students to write about the kinds of living things in the pond, the goal is for students to understand and see directly the ecosystem in the pond and how to preserve it so that the pond ecosystem is always maintained. This is in accordance with what was expressed by [13] during a pandemic like this, teachers are required to provide excellent service to students through a learning process that is able to explore learning resources optimally so that students experience an increase in academic capacity in both the cognitive, psychomotor, and affective domains of students embodied.

The activities of the learning process on that day were very clear, all activities carried out by students outside the classroom could be completed properly by looking at the reports that had been done by the students in accordance with the results of observations outside the classroom. Although this learning is limited due to the pandemic, students are very happy to take part in the
learning because they can directly see the objects being studied at that time. Based on interviews with teachers, the results of student worksheets that have been done by students are in good category and student activity during the learning process is in accordance with the learning implementation plan in good category.

C. The teacher’s role during the pandemic includes mentoring and motivator

The implementation of learning at home involves the activity of parents to motivate children to be able to learn from home. The government’s appeal regarding COVID-19 has caused the implementation of learning for formal education to be carried out at home. Some parents agree that during the pandemic learning is carried out at home, but there are also many parents who feel this is an additional activity for parents besides doing household chores, office activities, and other businesses. Parents also take time to teach children at home. This is in accordance with the opinion in [14] that parents doing work that must be completed from the office or home is an activity that is often carried out by parents, but to teach and instill concepts to them so that they can master the material provided is a difficult challenge because there needs to be more knowledge in accordance with the level of education obtained by previous parents.

Seeing the conditions experienced by SD YPPK Santo Tarsisius Biankuk students, this research was conducted by asking permission from the relevant agencies, school principals, and teachers to carry out face-to-face meetings by following all health protocols set by the local government. The aim is to increase students’ understanding and knowledge about the content of science for elementary school students. The role of the teacher during the learning process is as a motivator who directs students in working on the material, it is proven when students make observations out of school the teacher explains in advance what they do while outside the classroom so that what they observe and report later is in accordance with the intent of the teacher’s question.

The teacher explains this so that the learning process can be controlled and run according to what is expected. In addition, from the delivery of learning objectives delivered by the teacher in the initial activities, students can accept and be motivated to learn. Motivation is not only in the form of an explanation given by the teacher but a competition that will later get a prize. This was indeed planned by the teacher before learning to be able to increase the value obtained by the previous student. The teacher forms students into groups of 2-3 students in order to get the material they learn during the learning process both inside and outside the classroom. Students are very happy with the learning because students are invited to compete with other groups. There are students who observe in the pond, in the garden near the school and behind the school, everything is done by students according to the material and reports which will later be used as presentation material by students.

In addition to explaining the material about ecosystems, giving teacher competitions also giving prizes to students by giving applause and giving prizes to students whose groups observe the ecosystem well and can present it in front of the class. This is used as teacher motivation for students to study harder at home. The gifts given by the teacher are in the form of pens, pencils, rulers, and books to be used as motivational materials for students to be active again in class and at home. Students feel very happy with the face-to-face learning because in addition to receiving the material provided, students also receive prizes given by the teacher when answering questions and making reports well. After learning, the researcher then conducted interviews with 3 students to find out whether they were happy with the learning. Of the three students answered, all of them felt happy with face-to-face learning compared to offline learning which had made students very clueless about the assignments given. One of the students answered that we were happy and hoped that face-to-face learning could be like before. Because studying at home is different from school, if at school the material that is not understood or mastered can be explained by the teacher, but at home students are very difficult to do and want to ask where our parents are busy with their respective jobs, so we don’t have time.

Providing learning motivation to students the teacher has done it optimally but of course there are many obstacles considering that learning is not carried out as usual because the time given by the teacher to carry out face-to-face is quite limited and activities are also carried out limited so that it only provides according to the learning implementation plan that has been prepared by the teacher. The success of a teacher in learning depends on how the teacher can foster student learning motivation. Big or small motivation is very influential on learning outcomes [15]. However, teachers still try to give more attention to students so that they are enthusiastic and always motivated in learning, not much different before the pandemic.

4. CONCLUSIONS

The teacher’s role in supporting ecosystem learning at SD YPPK Tarsisius Biankuk is to help students understand ecosystem learning where learning is carried out by asking students to take part in face-to-face learning in the classroom and outside the classroom. This learning really helps students in finding ecosystem learning that has been developed. studied, the teacher as a facilitator where students are very active in learning that guides students to do assignments and reports according to the questions given by the teacher on the student group worksheets, and teachers as motivators who always provide motivation in learning. The role of teachers in
generating learning motivation for students has been carried out to the maximum but of course there are still shortcomings and obstacles because learning is not carried out as usual before this pandemic, activities are limited and time in learning is only given 2 x 25 minutes for 1 meeting only.

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