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HOW ISTHE STUDENTS' LEARNING ACHIEVEMENTTHROUGH PROJECT-BASED ACTIVE LEARNING MODEL ACTIVITIES IN THE COVID-19 PANDEMIC ERA AT SDN 1 BRANGKAL WEDI KLATEN?

Astutiati[1], Ali Mustadi[2]
[1,2]Yogyakarta State University, Yogyakarta City, Indonesia
e-mail:[1]astutiati.2021@student.uny.ac.id, [2]ali_mustadi@uny.ac.id

Abstract
This study aims to describe students' learning outcomes through the project-based active learning implementation in the Covid-19 pandemic era. This research was conducted at SD Negeri 1 BrangkalWediKlaten. The research method applied was descriptive quantitative research. The subjects of this research were 9 students of the first grader students of SD Negeri 1 BrangkalWediKlatenin the 2021/2022 academic year. Research data were collected through documentation studies and field observations. The data analysis technique was carried out using a descriptive method to determine the average value, the highest value, and the lowest value and presented it into a table. The results of this study indicated that: 1) The project-based active learning model implementation can describe students' knowledge with an average score of 86.67 and students' skills in doing the projects with an average score of 76.66. 2) In general, the project-based active learning model implementationwas appropriate and effective to solve the problems faced by students in learning in the Covid-19 pandemic era. Thus, it can be concluded that the implementation of project-based active learning can gain knowledge, skills, and attitudes of students in learning in the era of the Covid-19 pandemic.

Keywords: Implementation, Active Learning, Knowledge, Skills, Attitude

INTRODUCTION

Laterally, science learning includes subject matter related to the universe in which is complete system in all living things can maintain their existence through the presence of other living things (Manalu et al., 2015). For this reason, students are led to be able to understand this basic knowledge where it exists as a unit system in the universe. The purpose of sciences learning in elementary schools is to increase students' curiosity about things related to science to develop the ability for critical thinking, answer and communicate natural phenomena. The importance of the science subject for elementary students matter is understood by elementary school students so that the science subject is designated as a subject that should not be studied (Ukoh, 2012), the science lesson content is the basis of knowledge for elementary school students to be able to master science and technology (Checkley, 2010 and Haqiqi, 2018).

Learning sciences at the elementary school level has an orientation that must be achieved, this orientation is determined based on competency standards that must be achieved through the learning process. Samatowa (2006) explains that the competencies that must be mastered by students in learning sciences are the ability to observe what is happening around them, demonstrate what has been observed, implement the knowledge gained through the learning process at school, and be able to formulate estimates of a condition based on natural conditions. Manalu et al., (2015) explain that one of the competency standards that students must have after studying sciences is being able to be scientific with a high attitude and curiosity, ask questions, collaborate, and care about living things in their environment. In addition, students must be able to understand natural behavior related to environmental changes that occur in the school environment and their home environment.

To achieve this ideal expectation above explained, students must be equipped with the most basic knowledge. In particular, the basic knowledge that must be taught to elementary school students is reading skills and writing skills (Pratiwi, 2020). Reading skills, writing skills, and numeracy skills are the basis of the abilities that students will learn (Mustikowati, 2016 and Novriza, 2020). By having this basic knowledge, students will be able to develop creativity, effectiveness, and motivation of students through learning natural sciences in schools. However, the ideal picture described above has not been achieved, especially in the era of the Covid-19 pandemic that has occurred since 2019 until now throughout the world.

Corona Virus Sars 2019 (Covid-19) has become the cause of the chaos of the system that has been built in human life universally. Systems, principles, paradigms, views, approaches, strategies, methods, models, techniques, tactics and face-to-face learning practices that have been going on for centuries are experiencing very serious

turbulence. The turbulence of the education system in all countries in the world has undergone a total and radical change. This change is marked by the transformation of learning from face-to-face to online distance learning (Moorhouse, 2020., Pace at el., 2020, and Azhari&Fajri, 2021). Distance learning has become a forced choice and as a special alternative that is carried out through virtual classes in this Covid-19 era (Viner et al., 2020., Ng et al., 2020 and Talidong et al., 2020). This change also resulted in a shift in learning orientation where before the Covid-19 pandemic technology was an object that students studied in the classroom, while educational orientation during and after the Covid-19 pandemic technology became the object used for learning (Zahara&Kririlova., 2020., Almarzooq et al., 2020., and Nonthamand et al., 2020).

Since April 2020, governments in more than 190 countries have closed and suspended face-to-face school activities as a policy to protect students from the dangers of emergencies and serious threats to student health. This closure forced more than 90 percent of registered students worldwide or as many as 1.6 billion to switch to distance learning or not be able to participate in learning at all (UNESCO, 2020). Due to this emergency situation, students around the world are unable to carry out learning activities at school. Almost all students experience learning lost and lose the opportunity to hone their potential through learning and this condition lasts for more than a year (Mseleku, 2020., Stambough et al., 2020 and Reuge, et al, 2021).

The Covid-19 pandemic has had a negative impact on the effectiveness and efficiency of the national education process in Indonesia. Based on data released by the National Secretariat of Disaster Safe Education Units, the Ministry of Education and Culture in 2021 revealed that 1.38 million education units were closed. Meanwhile, in Indonesia, consisting of 6,462 educational units, it cannot be activated as the previous function was to organize direct learning in the classroom. Furthermore, data from the same source shows that as many as 68.8 million students cannot participate in face-to-face learning in their respective classrooms. The Covid-19 pandemic has also resulted in as many as 4.2 million teachers and lecturers in Indonesia being unable to carry out direct learning, guidance, mentoring, and training in schools, universities and also in laboratories.

The above conditions prompted the Indonesian government through the Indonesian Ministry of Education and Culture, Research and Technology to issue circular letter number 4 of 2020 to carry out the learning process from home through various online learning applications. This condition causes various very serious problems among the community, such as parents of students, students, and teaching staff as well as members of the community in general. People are faced with a very difficult choice between trying to follow online learning, protecting themselves and their respective families from the transmission of Covid-19, or working to meet the needs of their families in the midst of an increasing pandemic spike. Data from the World Health Organization on November 1, 2021 showed the death toll reached 5,932,000 and 246,382,000 people worldwide. While in Indonesia the number of deaths reached 143,000 people and the number infected with Covid-19 reached 4,240,000 people.

The results of the research revealed by Azhari&Fajri (2021) that the main obstacles to distance learning during the Covid-19 pandemic in Indonesia are (1) Most teachers are not equipped with the skills to carry out distance learning. (2) Teacher knowledge and teacher independence in using information technology before Covid-19 cannot be applied directly during Covid-19 learning. (3) Students have low awareness of learning independently from home. (4) Parents of students have low awareness and concern and low ability to assist online learning from home. (5) Inadequate family economic conditions to provide learning needs in the network. (6) Unstable and very poor internet connection in outer and interior areas. (7) Students are not used to using various distance learning applications. (8) The government is considered slow in making strategic policies that are directly applicable to problems in the field, such as the procurement of learning support facilities and mentoring of teachers to master the required learning technology. (9) The government does not yet have specific and applicable guidelines regarding the implementation of distance learning prior to the Covid-19 pandemic.

The conditions caused by the Covid-19 pandemic have resulted in learning loss in almost all levels of education in the world, especially at the elementary school level in Klaten Regency, in this case, SDN 1 Klaten was no exception. To increase the effectiveness of the learning process and student creativity in learning in the era of the Covid-19 pandemic, it is necessary to apply learning models that are relevant to the gradation of teaching materials and student character. For this reason, in this study, we apply project-based active learning in Science Subjects. According to Ginanjar (2020) active learning when explained etymologically, the first word is active which has the meaning of being active, energetic, agile, playing a role, and diligent. Furthermore, the word learning means learner which comes from the basic word learn which means to study. It can be concluded that active learning is an activity to learn something energetically and actively.

The active learning approach is a term in the world of education, namely as a teaching and learning strategy which aims to improve the quality of education. To achieve student involvement to be effective and efficient in learning requires various supports in the teaching and learning process. For example, from the point of view of students, teachers, learning situations, learning programs and learning facilities. This understanding shows that the

active learning method places students as the core in teaching and learning activities. Students are seen as objects and as subjects. According to Nurdin& Usman (2002) active learning is an active and dynamic teaching and learning process. In this process students experience "intellectual-emotional involvement" in addition to their physical involvement. The application of the project-based active learning model will make students feel more pleasant learning atmosphere so that learning outcomes can be maximized (Baharun, 2015).

The results of research conducted by Kumara (2004) shown that the application of the active learning model has significant effect on students' life skills and has significant relationship with students' cognitive improvement, which includes aspects of student creativity in everyday life. Next, the results of Sutarya's research (2017) shown that the application of the active learning model has a significant effect on improving learning outcomes and creativity of students at SD Negeri Tanah Tinggi 05, Central Jakarta. The application of the active learning model has proven to be effective in increasing the effectiveness of learning and student creativity. This is in accordance with the results of Baharun's research (2015) showing that the application of the active learning model has an effect on increasing skills in students' natural science learning where students feel comfortable and involved in the learning process. Furthermore, the results of Nurhidayati's research (2019) shown that the application of the active learning model can increase the effectiveness and creativity of elementary school students in participating in learning. In the learning process students are involved in carrying out various activities, creativity that results in direct learning projects.

RESEARCH METHOD

The research design was quantitative research approach. Awwabin (2021) stated that descriptive research is a research method which describes the characteristics of the population or phenomenon being studied. So that the main focus of this research method is to explain the object of the research. So answer what events or phenomena occur. Nazir (2011) describes the descriptive method as follows: The descriptive method is a method in examining the status of a human group, a subject, a set of conditions, a system of thought or a class of events in the present. This research method was designed using a descriptive analytical method. Sugiyono (2019) The analytical descriptive method is a method that aims to describe or provide an overview of an object of research that is studied through samples or data that have been collected and make generally accepted conclusions. Awwabin (2021) states that in the descriptive method there is also a process of collecting data with analytical methods. So that researchers will conduct an assessment of the work and activities of the test subjects. The aim is to know human activities and work in detail.

This research was conducted at SD Negeri 1 BrangkalWediKlaten Indonesia. The subjects of this study were the first grade students of SD Negeri 1 NgredenWonosariKlaten. The number of students as the subject of this study consisted of 9 students. Data collection techniques were observational studies and documentation studies. The results of this study were processed by using descriptive methods to determine the average value, the highest value, and the lowest value and presented in tabular form.

RESULTS AND DISCUSSION

The results of implementing the project-based active learning model can be viewed from two things. First, based on the conditions that arise in the learning process as a result of the concepts and theoretical steps of the project-based active learning model. Second, student learning outcomes after participating in the project-based active learning process. In general, the application of the project-based active learning model has a good influence on student performance in participating in the learning process. In the learning process, students are encouraged to be actively involved both in thinking, communicating, collaborating, performing, and working on learning projects. This is because the steps of the project-based active learning model are oriented towards student-centered learning. In observing activities, students were invited to think simply through visual displays and were given the opportunity to express their opinions based on the results of their observations and thoughts on the phenomena they have witnessed accompanied by their parents' respective. The result of this activity was to encourage students to be actively, reactively, and proactively involved in whatever they sense, both through the senses of sight, hearing, and prediction.

Students also actively exchange opinions through collaborative discussions with parents and class teachers. This has an impact on students' communication and collaboration skills with that person. In addition, the project-based active learning model produces collaborative and communicative conditions where each student and parent is given the opportunity to present the results of their respective project work and other groups are given the opportunity to respond politely. Overall, this project-based active learning model produces students who were proactive, communicative, active, and creative in learning.

Based on the results of the learning assessment in the form of student knowledge competencies, the project-based active learning model has a positive impact on improving student learning outcomes. Student learning outcomes can be seen in the table below.

Table 1 Student Learning Outcomes on the Knowledge Aspect

No	Name	Score	Predicate
1	Student 1	100	Very Good
2	Student 2	80	Good
3	Student 3	100	Very Good
4	Student 4	80	Good
5	Student 5	90	Good
6	Student 6	100	Very Good
7	Student 7	90	Good
8	Student 8	70	Enough
9	Student 9	70	Enough
Highest Score		100	Very Good
Lowest Score		70	Enough
Average Value		86.67	Good

Table 1 above shows that the application of the project-based active learning model can improve student learning outcomes where all students achieve scores above the minimum standard completeness criteria. Overall, students complete the learning process which is marked by the lowest score being 70 and the highest reaching 100 and the average score being 86.67. This average value can be categorized as good predicate. Based on the scores obtained from 9 students, the project-based active learning model wss very suitable for learning sciences to increase students' understanding of conceptual and factual material according to the teaching material presented. This is in line with empirical data which says that the project-based active learning model has a positive significance on student learning outcomes based on the results of Karidia&Suprapto (2018) research which says that the active learning process can improve student learning outcomes through student involvement in learning process. The project-based active learning model also affects student competence according to the results of Effendi's research (2013) which proven that students were more active in active learning.

Table 2. Value of Student Learning Outcomes on the Skill Aspect

No	Name	Score	Predicate
1	Student 1	90	Very Good
2	Student 2	80	Good
3	Student 3	70	Enough
4	Student 4	70	Enough
5	Student 5	80	Good
6	Student 6	80	Good
7	Student 7	80	Good
8	Student 8	70	Enough
9	Student 9	70	Enough
Highest Score		90	Very Good
Lowest Score		70	Enough
Average Value		76.66	Good

Table 2 above shows that the application of the project-based active learning model can improve student learning outcomes where all students achieve scores above the minimum standard completeness criteria. Overall, students complete the learning process which was marked by the lowest score being 70 and the highest reaching 90 and the average score being 76.66. This average value can be categorized as good predicate. Based on the scores obtained from 9 students, the project-based active learning model was very suitable for sciences material to increase students' understanding of conceptual and factual material according to the teaching material presented. The project-based active learning model also affects student competence according to the results of Effendi's research (2013) which proves that students were more active in active learning.

Based on the acquisition of the value of knowledge and skills above, it can be stated that the application of the project-based active learning model can increase the effectiveness and creativity of students. The value of effectiveness is described by the value of student knowledge where the highest score is 100, the lowest value is 70, and the average value is 86.67. While the value of creativity is described by the value of student skills where the

highest score is 90, the lowest value is 70, and the average value is 76.66. While the attitude value where the participation aspect shows an average value of 3.11 with a good category, the cooperation aspect of 2.66 is in the good category, and the active aspect of recording plant development is 2.66 in the good category.

In practice, the application of the project-based active learning model can increase the meaning of the learning process in the online and non-online Covid-19 pandemic era because the learning process encourages students to be more involved and act in learning. This learning process also presents a fun situation for students because what is learned is directly put into practice in working on learning projects through planting plants and observing them continuously. In addition, in the learning process students and parents can improve their collaboration and communication with children so that conflicts and learning problems can be overcome. The following is a visualization of collaboration between students and their parents in participating in the learning process with a project-based active learning model.

The results of the discussion above illustrate the effectiveness of the application of project-based active learning model where learning activities can provide meaning to students and their parents as companions. The application of the project-based active learning learning model teaches students to do things procedurally and naturally where the chosen planting project must be carried out starting from the work steps in accordance with procedural provisions. This learning process can build effective collaboration between students and parents to achieve the learning objectives set by the classroom teacher. Students do not feel bored following learning in the Covid-19 pandemic era because they can directly experience the learning process in a real context. This process was believed by the initial researchers that the application of project-based active learning was a solution to prevent learning loss in the Covid-19 pandemic era.

CONCLUSION

Based on the results of the discussion above, it can be concluded in this study as follows:

1. The application of the project-based active learning model can improve students' knowledge, skills, and attitudes during the learning process in the Covid-19 pandemic era and the creation of learning projects.
2. The application of the project-based active learning model can increase students' knowledge competence with an average value of 86.67. The average score can be categorized in the goodcategory.
3. The application of the project-based active learning model can improve student competency skills with an average 76.66. The average score can be categorized in the good category.
4. In general, the applying of project-based active learning models to solve problems faced by students in learning in the Covid-19 pandemic era was appropriate and effective.

SUGGESTIONS

Based on the results of the application of the project-based active learning model to solve the problems faced by students in learning it is proven effective and has an effect on increasing knowledge competence and skill competence, and student attitudes, the authors provide the following suggestions:

1. Implementing project-based active learning model to address student problems in other subjects both at SD Negeri 1BrangkalWediKlaten and in other schools in the era of the Covid-19 pandemic.
2. Continuously improve the implementation of research in educational institutions to improve the effectiveness and efficiency of the learning process in the Covid-19 pandemic era to avoid learning loss, especially for elementary school education level.

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