

The effectiveness of advance organiser learning model assisted by Zoom Meeting application

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Abstract

The COVID-19 pandemic caused the education system to suddenly move from offline to online learning, so it takes a variety of effective learning design trials. This research aims to find out the effectiveness of the advance organiser learning model assisted by the Zoom Meeting application. This research was conducted at State Junior High School 3 Binamu, Jeneponto Regency. The research sample was 20 people. The research was conducted with an embedded design model of mixed methods. The findings show that the online advance organiser learning model uses an effective Zoom Meeting application for use, where 1) the application of advance organiser learning has a positive relationship with student learning outcomes; 2) the implementation of learning takes place in the category of 'good'; 3) students' positive activities increase in each meeting and 4) students respond well to the implementation of the advance organiser learning model/ using the Zoom Meeting application. The implementation of advance organiser online learning using the Zoom Meeting application, however, is no more effective when compared to the implementation of learning conducted offline or under normal conditions.

Keywords: Advance organiser, distance learning, pandemic COVID-19, Zoom meeting.

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1. Introduction

Suddenly online. The term is pinned to the condition of education in Indonesia after the COVID-19 outbreak hit. After the COVID-19 virus was designated as a pandemic by the World Health Organisation (WHO), all learning activities were transferred from face-to-face learning directly to distance learning or online (Simamora, 2020). It is based on the policy of the Indonesian government which aims to limit physical interaction of people, including in schools and universities. These conditions make teachers have to accept the condition by changing the classroom management system, learning system and learning media usage (Abidah, Hidaayatullaah, Simamora, Fehabutar & Mutakinati, 2020). In this case, it absolutely takes innovation for teachers in preparing meaningful learning for students.

Especially in Indonesia, distance learning was not very popular before the COVID-19 pandemic. In addition, educational system tends to prioritise direct learning (offline) (Suhartini, Wahyuningsih, Russanti & Prihatina, 2020). The availability of online learning facilities and infrastructure also is still limited. This includes mastery of IT-based learning from teachers and students, which is still quite low (Sugiyanto, Maryani & Ruhimat, 2018). Therefore, the socialisation of learning with the online system takes longer for the learning process to be effective.

The one which necessarily utilises the online system is SMPN 3 Binamu, Jeneponto Regency. SMPN 3 Binamu is one of the state junior high schools in Jeneponto Regency which implements national education standards in Indonesia. The teaching staffs admit they need the results of research that can be applied, so that distance learning can be more effective. The teachers assessed that learning models with distance learning systems are too difficult to implement. Additionally, the distance learning application utilised by the majority of teachers in the school is just WhatsApp and Google Classroom platform.

Many similar cases are also found in different countries due to changes in the learning system. Besides, to the implementation of learning, problems – such as learning outcomes and low student learning motivation – decrease student learning activities. Teachers have difficulty mastering to run of learning (Uka & Uka, 2020). Therefore, the alternative solution is needed to solve the problem.

Effective learning well known can be seen in four aspects. They are the completeness of learning or student learning outcomes, positive student learning activities, the implementation of learning, and the positive response of students to the learning process. The implementation of learning can be reported by the teacher, but it is not necessarily interesting according to the students. Similar in terms of learning outcomes, students in the class can show high learning scores. But it is not necessarily connected to the positive attitude shown by students. Learning is done remotely, making it difficult for teachers to assess or control student attitudes and activities (Durlak, Weissberg, Dymnicki, Taylor & Schellinger, 2011).

During the COVID-19 pandemic era, there are many platforms or online learning media that can be used by teachers in schools. Both facilities prepared by the government and media prepared independently by teachers through third-party providers. In this case, the Zoom Meeting app or Google Meet becomes the most widely used application by teachers to perform the face-to-face learning process (Kristóf, 2020). While Google Classroom and WhatsApp Group become media used for instructional learning (Rahmanda, Sandhi & Sunaryo, 2020).

Through these learning media, teachers are required to be able to create a fun learning atmosphere and to provide meaningful learning experiences for students. Thus, teacher innovation in compiling

learning tools is urgently needed. The integration of learning models for that purpose needs to be explored. In various previous studies, many learning models can be applied – one of them is the advanced organiser model.

The model of learning in schools depends on the teacher. It is just that teachers need to consider the learning model by following the objectives and materials taught. The learning model that teachers pour into learning devices needs to touch the cognitive, affective and psychomotor realms of students (Ruben, Setiawan, Illu & Wahyuni, 2020). These considerations are in accordance with Bloom’s

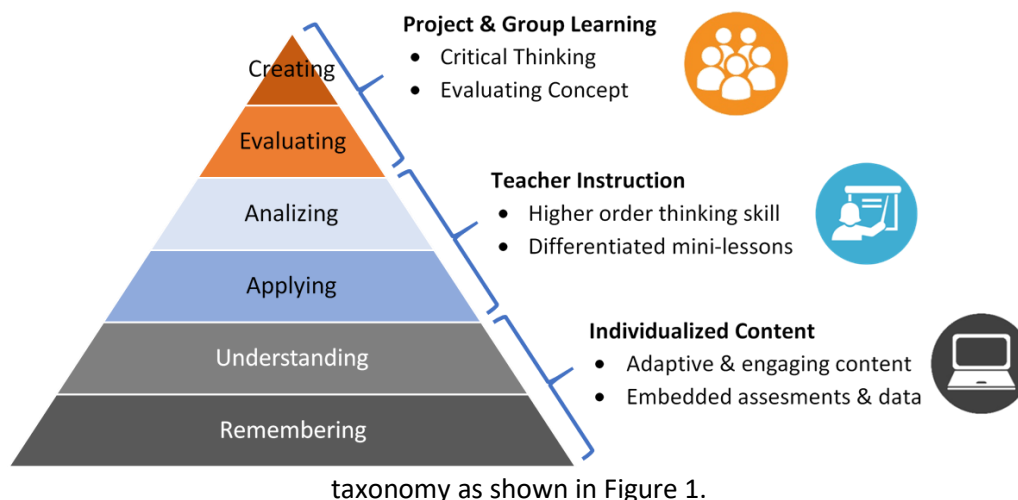


Figure 1. Hierarchy of learning domains by Bloom’s taxonomy

Based on Bloom’s taxonomy development shown in Figure 1, the advance organiser learning model was developed to create an optimal learning process. This model emphasises the pattern or presentation of material deductively from rules (principles) to examples (Elfeky, Masadeh & Elbyaly, 2020). It refers to Ausubel’s opinion which confirms that a person is knowledge-sharing through the transfer of knowledge. It means that concepts, principles and/or ideas are presented and accepted by a person, not through invention (Yanez-Araque, Hernandez-Perlines & Moreno-Garcia, 2020). Therefore, the advance organiser model is in the initial setting. In this case, the teaching materials used should be focused and organised. Teaching materials are arranged as sequential, organised and comprehensive, so that students can receive the wearable materials most efficiently (Kusdiastuti, Gunawan, Harjono, Nisyah & Herayanti, 2020). The teaching materials in this learning model usually are arranged in simple verbal forms, charts, diagrams and semantic maps.

The presentation of materials through advanced organisers has three application stages: first, the presentation stage of advanced organisers; second, the presentation of learning tasks or learning materials; third, testing the relationship between learning materials and existing ideas to create an active learning process (Hill & Charalambous, 2012).

Advance organiser has become an effective method of learning to improve thinking skills due to the following: (1) advance organiser brings back relevant concepts in the cognitive structure of learning; (2) the relevant abstract concept is a place to connect new ideas (ideational scaffolding); (3) detailed and concrete concepts contained in the material to be studied (learning task) are accepted by students into their cognitive structure (4) using intellectual ability and ability to connect new and old concepts, students understand its contents, because the material studied becomes a new part of the student’s

cognitive structure, while the concept of not being used will disappear into the student's subconscious (Li, Wu & Lin, 2019). However, is the advance model also effectively used during the COVID-19 pandemic? This study uncovered findings related to this question.

By mid-August 2020, Jeneponto district as the location in this study had implemented face-to-face learning trials in several schools. The implementation was carried out gradually while still complying with health protocols to prevent the spread of COVID-19. With that in consideration, the method of implementing advance organiser learning was modified by combining online and offline learning. It was carried out so that the procedure of implementing the advance organiser learning model could be applied systematically. Besides, this model can make it easier to collect data about the effectiveness of learning.

2. Research method

2.1. Design

The research was carried out by a mixed method of an embedded design model as shown in Figure 2.

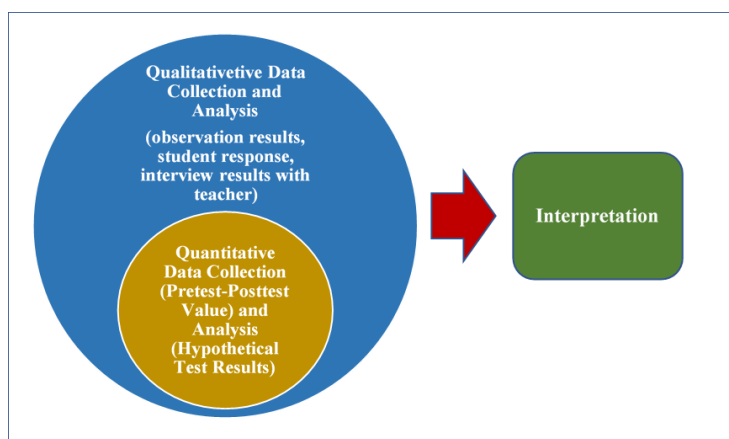


Figure 2. Mixed method of the embedded design model

Quantitative research data obtained through pre-experiments (one group pre-test and post-test design) involving one class as an experimental class aimed to find out the effectiveness of the advance organiser model. The data are emphasised through the description of student activity data during the learning process and the response and completed learning obtained after the implementation of learning using the advance organiser model. The results of both methods became the material of interpretation in drawing conclusions and revealing the findings in this study.

2.2. Participants

This research was conducted at SMPN 3 Binamu Jeneponto Regency from July to August 2020. The research population consisted of three classes with a total of 67 students. The sample of the study was class VIII group A of 20 students.

2.3. Data collection tools

Data collection was carried out by using instruments in the form of student learning test sheets (pre-test and post-test), observation sheets, student response sheets and interviews. All types of instruments were compiled and used after going through a validation process with experts and peers.

2.3.1. Study results test (pre-test and post-test)

This test of learning outcomes is used to determine the value of students' learning outcomes. These data are then used to answer the effectiveness of the implementation of the advance organiser model. The test consists of two types of tests before the experiment (pre-test) and test sheets after experimentation (post-test). The question items in the test are used after going through the process of testing and validation from experts. The pre-test and post-test each contain 20 multiple choice question items organised based on the subject matter used in this study. The test is conducted on schedule by utilising Google Forms.

2.3.2. Observation

The observation sheet is used to get data about student activities and learning implementation by using the advance organiser model. Especially for the implementation of learning, observations are made by assessing the ability of teachers in managing the learning process. The value is given based on four categories, namely less (value 1), enough (value 2), good (value 3) and very good (value 4) in the column that corresponds to the standard of management of online learning activities using the advance organiser model assisted by the Zoom Meeting application.

2.3.3. Questionnaire (student response)

The response questionnaire consists of five types of questions used to assess student satisfaction towards the application of advance organiser model assisted by the Zoom Meeting application. The questionnaire was compiled through Google Forms.

2.3.4. Interview

The interviews used in this study are structured interviews. The interviews were conducted with teachers and students in research classes. The interviews were used to obtain data on the implementation of learning by using an advance organiser model assisted by the Zoom Meeting application.

2.4. Materials and environment

The material used in this study is a learning plan sheet using an advance organiser model. During the process of implementing the advance organiser model, the teacher is guided by the plan sheet. The materials taught are relation and function materials. The material was temporarily taught in the mathematics lessons in grade VIII of the junior high school.

2.5. Implementation

The experiment was conducted during six meetings. The implementation of these activities is carried out by a combination of remote methods (online) and direct methods (offline). The online method is carried out using the Zoom Meeting application facility, with the control centre (host) that is

the teacher, while the methods outside the network are carried out in parallel by grouping students into five groups. Each group consisted of four students taking into account the distance of residence of each group member. Each group is placed in one room and supervised by one observer each. The meeting of each group was conducted in compliance with the health protocols to prevent the transmission of COVID-19.

2.6. Analysis of data

Data analysis was carried out to answer the effect of applying advance organiser model assisted by the Zoom Meeting application and by using SPSS Version 27. The data were tested through a paired sample t-test. The test was conducted after the data were known to be normally distributed. The conclusion of the study was obtained through triangulation methods from test results, observations and student responses, as well as interview results.

3. Results

The findings in this study are quantitative data from pre-test and post-test results and the value of observation results, as well as qualitative data, in the form of interviews with teachers and student response data. The data were generated from the implementation of advance organiser model that was implemented during six meetings with a combination of remote (online) methods and direct methods (offline).

3.1. Students' learning skills

Data on student learning completeness were obtained through descriptive statistical analysis and inferential statistical analysis based on students' pre-test and post-test scores. An analysis is carried out using the SPSS Version 27 application.

3.1.1. Data statistics and frequency distribution

Based on the results of the analysis using SPSS version 27, statistical data shown from pre-test and post-test are shown in Table 1.

Table 1. Statistics of pre-test and post-test results

	Pretest	Posttest
N (Valid)	20	20
N (Missing)	0	0
Mean	46.25	77.20
Std. Deviation	13.699	9.254
Variance	187.671	85.642
Range	45	31
Minimum	26	63
Maximum	71	94

The frequency distribution of pre-test and post-test results is shown in Table 2.

Table 2. Frequency Distribution of Pretest and Posttest Results

Score indicators	Category/Level	Pre-test		Post-test	
		Frequency	Percentage (%)	Frequency	Percentage (%)
0-54	Very Low	15	75	0	0
55-74	Low	5	25	10	50
75-79	Medium	0	0	1	5
80-89	High	0	0	7	25
90-100	Very High	0	0	2	10

Based on Table 2, it can be concluded that the average pre-test score of 46.25 with a standard deviation of 13.7 from the ideal score of 100 is in a very low category. This means that generally students who become research units of mathematics learning results are very low, while the average post-test result shows a value of 77.20 with a standard deviation of 9.25 out of an ideal score of 100, which is in the moderate category. This means that generally students – becoming research units of mathematics learning results – are in the moderate category.

3.1.2. Learning completeness value

Based on the distribution of the frequency of test results as well as the standard of learning completion set at SMPN 3 Binamu, the value and percentage of student learning completion can be seen in Table 3.

Table 3. Students' learning completeness value using advance organiser learning model

Score	Categorization	Pretest		Posttest	
		Frequency	Percentage (%)	Frequency	Percentage (%)
70-100	Complete	2	10	17	85
0-69	incomplete	18	90	3	15
	Total	20	100	20	100

Based on Table 3, it can be stated that 1) the results of the pre-test showed that as many as 2 students (10%) achieved learning achievement and as many as 18 students (90%) did not achieve learning achievement, and 2) the post-test results showed as many as 17 students (85%) achieved learning completeness, while 3 students (15%) did not achieve learning completeness.

3.1.3. Normality test

Normality test was carried out using the Kolmogorov–Smirnov test. The test results are shown in Table 4.

Table 4. Kolmogorov Smirnov Test Result

		Unstandardized Predicted Value
	N	20
Normal^a	Mean	46.25
Parameters^b	Std. Deviation	10.74891271
Most Extreme Differences	Absolute	0.149
	Positive	0.149
	Negative	-0.101

Test Statistic	0.149
Asymp. Sig. (2-tailed)	0.2 ^{c,d}

- a. Test distribution is normal.
- b. Calculated from data.
- c. Lilliefors significance correction.
- d. This is a lower bound of the true significance.

Normality test results showed that the significance was $0.2 > 0.05$. This indicates that the pre-test result score data and post-test score data are distributed normally. Thus, the data of pre-test and post-test results used can continue to examine the hypothesis in this study.

3.1.4. Hypothesis testing

Data description about the effect of applying the advance organiser learning model on student learning results is obtained through paired samples t-test statistics test. The test results are shown in Table 5.

Table 5. Paired samples t-test statistics

	Paired differences 95% confidence interval of the difference upper	t	df	Sig. (2-tailed)
Pre-test and posttest	-26.914	-16.051	19	0.001

Based on the results of the analysis of paired t-test samples obtained a correlation coefficient value of 0.785 with a significance (sig.) value of 0.001. Since the value of sig. is $0.001 < 0.05$, it can be concluded that there is a correlation between pre-test and post-test (2-tailed) = $0.001 < \alpha = 0.05$. Thus, the H0 hypothesis is rejected and H1 is accepted; so, it can be concluded that there is a significant influence of the advance organiser model on student learning outcomes with a significance score of 0.001.

3.2. Learning implementation

Several aspects were observed in the implementation of mathematics learning online by using the advance organiser learning models. These aspects were observed directly during the learning process which began from meeting II to meeting V, assuming that meeting I and VI were the implementation of pre-tests and post-tests. The results of the observations on the implementation of learning are shown in Table 6.

Table 6. Observation results of students activities through the advance organiser model

No.	Aspects observed	Meeting	Average	Category
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		II	III	IV	V		
1	The teacher explains the purpose of learning a subject	4	4	4	4	4	Excellent
2	The teacher asks students to identify a list of important concepts in the subject matter	3	3	3	4	3,25	Good
3	Students determine relevant concepts	3	4	4	4	3,75	Good
4	Teachers and students group (sort) concepts from the most inclusive to the least inclusive	2	2	3	2	2,25	Quite
5	Teachers and students structure these concepts in a chart, the most inclusive concepts placed on the base of the chart	2	2	2	2	2	Quite
6	The teacher explains the understanding and every attribute contained in the advance organiser learning model	3	3	3	3	3	Good
7	The teacher repeats the concepts, principles, and rules that have been studied	3	3	3	4	3,25	Good
8	The teacher lures and encourages the knowledge and experience of the next student ready to receive new material	3	3	3	3	3	Good
9	Teachers and students together develop the advance organiser framework into material that is logically understandable to students, especially about the interconnectedness of the elements contained in it	2	2	2	2	2	Quite
10	The teacher explained the learning material clearly and thoroughly on a subject with relevant examples in the order of the material clearly	2	2	2	2	2	Quite
11	Teachers give training to students	4	4	4	4	4	Excellent
12	Teachers use the principles of integrative reconciliation	3	3	3	3	3	Good
13	Students give examples of concepts related to the material	2	3	3	3	2,75	Good
14	The teacher improves the critical approach to the subject by asking the student about his/her opinions relating to the subject matter	3	2	3	3	2,75	Good
15	The teacher makes a conclusion or summary	4	4	4	4	4	Excellent
Avarage						2.99	Good

The data in Table 6 show that the implementation of online learning during four meetings using the advance organiser learning model was 'good', although it showed a fairly low average value. Thus, it can be concluded that the application of the advance organiser learning model by the Zoom Meeting application is not bad to be applied in SMPN 3 Binamu.

However, Table 6 shows that some aspects observed have low values. They are as follows: 1) teachers and students still do not show good value in putting together concepts in a chart; 2) teachers and students have not been good at jointly developing the advance organiser framework into material that is logically understandable to students 3) the teacher's process in explaining the learning material clearly and completely is not carried out properly as yet.

In addition to the results of the above observations, the data on the implementation of learning using advance organiser learning model assisted by zoom application were found from the results of interviews with teachers of grade VIIIA SMPN 3 Binamu. The results of the interview explained that online learning using advance organiser assisted by the Zoom Meeting application has several weaknesses in the implementation of learning; first, the Zoom Meeting application as a new remote communication media became popular only after the COVID-19 pandemic hit, so teachers need time to learn how to use it and adjust to the learning model used; second, teachers claim to be unable to monitor and supervise student activities due to online learning, so teachers cannot provide specific guidance to students who have difficulty understanding the material; third, teachers need a lot of time to prepare the learning design, so that the learning can go according to plan; fourth, online learning requires quotas and a good internet network. In this case, teachers often experience disruptions during the learning process due to bad internet connections. Therefore, teachers have difficulty in completing the material and providing relevant examples so that students can understand the whole material; fifth, the learning designed online and offline makes teachers need help from other parties to guide students in each unit or terminal of the specified Zoom Meeting application.

3.3. Student activities

To find out the changes in student attitudes in the teaching and learning process, researchers can see the observation results of student activities conducted at each meeting during mathematics learning through the advanced organiser model. The observation data are illustrated through Table 7.

Table 7. Observation results of students activities through the advance organiser model

No.	Student activities	Second meeting		Third meeting		Fourth meeting		Fifth meeting	
		<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
1	Listen to the teacher's explanation	11	55	18	90	18	90	17	85
2	Answer/respond to questions from friends/teacher	7	35	8	40	11	55	12	60
3	Ask questions about material that is not yet understood	9	45	8	40	8	40	9	45
4	Reading teaching materials	10	50	12	60	11	55	11	55
5	Recording the materials taught	11	55	17	85	18	90	18	90
6	Happy and passionate to follow the lessons	9	45	10	50	16	80	16	80
7	Collecting homework	20	100	20	100	20	100	20	100
8	Not doing any other activities outside of learning activities	11	55	18	90	16	80	18	90

Student activity data above during online learning using the advance organiser model assisted by the Zoom Meeting application was obtained from the observation of five observers from each unit or study group. Statistically, the data showed that student activity during four meetings showed positive progress. Of all the activities, there was an increase in effective activity from students. However, there are still some students who do not pay attention to the teacher's explanation and do other activities outside the learning process. Besides, students – who actively discuss and question and answer with teachers in each meeting – have not reached 50%. In the evaluation process, all students actively collect assignments or homework given by the teacher.

The above student activity data are confirmed by the data of the results of interviews with teachers; namely first, students who actively conduct and dare to ask questions in the classroom, both before and during the learning, are the same. Therefore, it can be said that the activeness of students in the discussion is not influenced by the application of the learning design. Second, there are differences from students' learning motivation in the implementation of online and offline learning. Student activities showed more positive grades during offline learning in the classroom or before the COVID-19 pandemic era than during the implementation of online learning. Third, the design of learning – using the advance organiser model assisted by Zoom Meeting application – is enough to help teachers in improving students' positive attitude in participating in online learning. In this case, student activities showed more positive grades compared to the online learning design usually used by teachers.

3.4. Data on students' response

Data on students' responses to online learning implementation through advance organiser learning model was obtained using questionnaires created through Google Forms. Besides, the students' responses were also obtained through in-depth interviews with students. The data also verified information about student activities during the learning, especially the response from students who were less eager to take lessons or do other activities during the learning. Questionnaire data results on students' responses are shown in Table 8.

Table 8. Data on Student Response

No	Description	Student Response		Percentage (%)	
		Yes	No	Yes	No
1	Enjoy learning mathematics by using advance organiser learning model lessons	17	3	85	15
2	understand the materials taught by teachers through advance organiser learning models	11	9	55	45
3	enjoy the questions used during learning through advance organiser learning models	9	11	45	55
4	enjoy the atmosphere of teaching and learning using advance organiser models	18	2	90	10
5	the advance organiser learning model is very motivating to improve math learning achievement	10	10	50	50
Average				65	35

The data in Table 8 shows statistically that students responded well to the application of advance organiser learning model assisted by the Zoom Meeting applications. Of all the aspects asked, the student response showed an average score of 65%. However, less than 50% of the students replied that they enjoyed the learning questions given during the lesson.

Besides, the results of the brief interviews with students found that 1) students feel facilitated in following online learning with this learning design. The use of the Zoom Meeting application in groups makes students motivated more to follow the learning because they directly interact with their classmates; 2) students admitted to having difficulty adapting to the unusual learning atmosphere; 3) students considers it difficult to develop their skills in the material that is followed because of the

limited classroom; 4) some students claimed that they could not cooperate with the group and 5) students rated the offline learning atmosphere as more enjoyable and made them more focused on learning.

4. Discussion

Based on the above findings, it can be concluded that the advance organiser learning model via Zoom Meeting is effectively applied in class VIIIA SMPN 3 Binamu. From the test results, the application of advance organiser learning has a positive relationship with student learning outcomes, where the average score of students after treatment (post-test) increased from before treatment (pre-test). The average pre-test score was 46.25 with a score range of 45, while the average post-test score was 77.2 with a score range of 31. Besides, there was a significant increase in the percentage of learning completion after the implementation of this advance organiser learning model. From the pre-test results, only two constituents, which is 10% of the students, achieved complete learning and as many as 18 people (90%) were incomplete, while the post-test results showed as many as 17 students (85%) achieved learning completeness. The posttest results showed as many as 17 students or 85% who achieved learning completeness.

The above findings confirm some of the results of previous researches which stated that the advance organiser learning model is effectively used in an effort to improve student learning achievement (Majid, Ahmad & Arsyad, 2020). Besides, Gunawan, Harjono, Nisyah, Kusdiastuti and Herayanti. (2020) also explained that students who are taught using advance organiser learning model are effectively used in learning because students are more able to focus on solving problems than that of students who are taught using inquiry learning models (Gunawan et al., 2020). The use of the Zoom Meeting application that is one of the online learning media is very helpful for teachers in delivering face-to-face materials with students. The Zoom Meeting application is equipped with features that help teachers as a control centre (host), so that the learning situation can be more controlled (Jena, 2020).

From the aspect of learning implementation, the findings of this study showed positive results. During the four-time learning event, the results were in the good level, although the average score was only 2.99. Student activities during four meetings showed positive progress. There was an increase in effective activity from students during the implementation of learning. There are, nevertheless, still some students who do not pay attention to the teacher's explanation and do other activities outside the learning process. Besides, students who actively discuss questions and answers with teachers in each meeting have not reached 50%.

These student activities are supported by student response data. In this case, students respond well to the application of advance organiser learning model assisted by the Zoom Meeting application. Of all the aspects asked, the student response showed an average score of 65%. Even so, it was found that less than 50% of the students admitted to not enjoying the learning questions during the implementation of learning.

However, statistically organising online learning with the Zoom Meeting application has proven to be effective and some notes are also the findings in this study. According to teachers and students, learning took place more effectively before the COVID-19 pandemic era. They say that students' learning motivation is better in offline classroom. Besides, the problem found is that the ability of

teachers to apply learning models using the Zoom Meeting applications is still not satisfactory. On the other hand, the availability of internet connection in Jeneponto district has not been evenly distributed, making online learning often disrupted.

The findings provide an overview of the condition of online learning in Indonesia, especially in Jeneponto Regency. As a result of the COVID-19 pandemic, the online learning system implemented suddenly left teachers unable to deal with it (Putra, Liriwati, Tahrir, Syafrudin & Aslan, 2020). This condition forces teachers to rely on online learning tools in organising learning. Meanwhile, teachers' ability and habits in implementing learning still rely on conventional learning tools. Both teachers and students need time to adapt to the online learning system (Rasmitadila et al., 2020). Besides, teachers need to improve their skills in applying advance organiser learning model as well as the use of Zoom Meeting applications (Teng, 2020). This is important as an option to deal with the problem of students' motivation in following online learning, according to the findings in this study.

The limitations in this research include that this research only describes the effectiveness of organising online learning using the advance organiser learning model. Some notes such as low student learning motivation and teacher constraints in implementing learning have not been studied further. Therefore, further research is needed regarding the factors that influence this. Second, the application of learning in this research is designed by combining online and offline methods, so that in its application, teachers need to pay attention to regional conditions (potential transmission of COVID-19) and health standard protocols.

5. Conclusion

This study concludes that the advance organiser learning model assisted by the Zoom Meeting application is effective for use, where 1) the application of advance organiser learning has a positive relationship with student learning outcomes; 2) the implementation of learning takes place in the category of 'good'; 3) students' positive activities increase in each meeting and 4) students respond well to the implementation of advance organiser learning model using the Zoom Meeting application. However, the implementation of advance organiser model assisted by using the Zoom Meeting application is no more effective when compared to the implementation of learning conducted offline or under normal conditions.

6. Recommendation

For the future, especially in the face of the COVID-19 pandemic situation, it is not yet known when it ends. Then, the quality of distance learning needs to be improved. Some experiments of the learning models and designs are necessary at all levels of education. In addition, the quality of internet connection and distance learning facilities need to be improved, especially in remote areas in areas that have diverse geographical constraints such as in Indonesia. Thus, the sustainability of effective learning is expected to be valuable even if the learning is carried out remotely.

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