

The Effectiveness of Online Collaborative Learning During Covid-19 Pandemic

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ABSTRACT

The purpose of this research is to explain the effectiveness of online learning in growing collaborative learning of the students during Covid-19 pandemic. This research used qualitative research method. Data collection was through google form distributed to 57 subject teachers and the interview on the students who conduct online learning. The research results show that even though the teacher can utilize online learning application well, they still encounter difficulty in building collaborative learning among the students whereas collaborative learning is a pivotal thing in building active learning activity on the students. This occurs because there are various obstacles such as the presence of the students is in different places until it is difficult to do coordination, difficulty in accessing the internet network especially the students living in the region, the teacher finds difficulty in monitoring the students' activity during the online learning until the learning model is more on using lecture method. Therefore, the coordination and support from the government, parents, the school, even the teacher are necessary in creating online collaborative learning effectively. On the other hand, that online learning encourages the emergence of social distancing behavior and can minimize direct contact between the teacher and students.

Keywords: *Covid-19, Collaborative, Online, Learning.*

1. INTRODUCTION

According to theory behaviorism, Learning is the change of behavior as the cause of the presence of interaction between stimulus and response. Learning is the form of change experienced by the students in their ability to behave with new way as the result of the interaction between stimulus and response. Someone is considered has learned something if he/she shows change in the behavior [1].

One of the effort to gain maximal result in changing students' behavior as the result of learning is by implementing effective learning. The learning is called effective when the students can absorb the learning material efficiently [2]. Many factors influence the effectiveness of learning such as coming from students themselves (internal) or from outside the students (external). One of the problem now faced by education world is the implementation of learning online caused by Covid-19 pandemic until the teacher is expected to maximize the learning facilities maximally so that the learning can run well even though it is conducted online. During Covid-19 pandemic the learning is

conducted online considering many victims infected by Covid-19.

Based on the data from Health Office of Lampung Province that there are 13 people passed away, 307 confirmed positive Covid-19, and 227 people stated healed from Covid-19 pandemic. This certainly makes the students' parents worry if the learning is conducted face to face. Therefore, the government of Lampung Province requires the school to conduct online learning by utilizing technology as the form of effort to minimize the occurrence of direct contact until the chain of Covid-19 pandemic infection can be stopped. It has been started in March until extended until October 2020 the learning is conducted online. Based on the data from Kominfo, because the learning is conducted from home via online the usage of internet increases 40%.

Through online learning system certainly will be different from the learning conducted face to face directly. Although the learning is conducted online and only needs short time, but the monitoring must be done even though from far distance and also the students must be capable of implementing the learning voluntarily at home so that students' responsible attitude

can formed. The volunteer activity does not only form common good for the community, but also developing care attitude to act and have strong willingness in working together and making the environment better from the aspect of the community role and responsibility [3].

One of the way to maximize the learning is by utilizing the learning media. Media is something which can be used to distribute the message from the sender to the acceptor until it can stimulate the mind, feeling, attention and interest of the students until the learning process can occur [4]. The usage of media in the learning is not limited on its usage in the learning process but also has specific purpose namely the achievement of effective learning.

Media utilization in the learning is the supporting facility which can increase the efficiency and effectiveness of learning success as mentioned by Smaldino [5] namely technology and media are adjusted and designed particularly can give contribution to effective learning for the students and can assist them to achieve their highest potency. However how if the learning is conducted through distance learning without any direct interaction either the students, teacher or the learning media? While the learning of 21st century nowadays emphasizes on collaborative learning.

According to the theory defined by LKPP of Hasanuddin University [6] that collaborative learning model is one of Student Centered Learning (SCL) models. In this model the learning is centered on students. The students are required to take active role in the form of learning together or in group. In its essence collaborative learning can be implemented in various study fields, especially in the subject which aims to form interpersonal skill of the students to study in group and needs the learning together or in group which cannot be solved individually. The purpose of collaborative learning is to form the cooperation character of the students since early age and capable of solving the problem together. The education in Indonesia is implemented to prepare the students to be the citizens who have strong and consistent commitment to maintain The Unitary State of Republic of Indonesia [7].

The outbreak of Covid-19 pandemic in all over the globe causes learning activity is conducted online. The teacher and students are not allowed to do face to face learning directly which means the teacher and students are in different places. The consequence of this educational institution closure physically and changes the learning at/from home as the government policy is the change on the system of teaching and learning process [8]. This certainly has effect on the achievement of learning purposes. Covid-19 pandemic influences almost all life aspects, included educational aspect [9]. Therefore in educational world, collaborative learning is pivotal to form students' interpersonal skill until the researcher would like to find out the effectiveness of the

learning conducted online in improving students collaborative skill during Covid-19 pandemic.

2. METHOD

Every single research needs research method as the way to achieve the research purpose. The research type used was qualitative research. The purpose of this research was to describe how effective is the learning done via online in improving students' collaborative learning as the effort to prevent the spread of Covid-19 in educational environment particularly. Online learning meant is the learning which uses learning media which can be accessed through internet network. In this research, the survey was firstly conducted on the subject teachers who used online learning. During Covid-19 pandemic, did the teacher implement online learning or not.

The survey was conducted through google form with question component related to the application used during online learning, the learning media/equipment used, the obstacles encountered during online learning, and the learning model used. The link was given to 57 teachers of Al Kautsar Senior High School via whatsapp message. The research location was Al Kautsar Senior High School is considered precise because the students at Al Kautsar Senior High School were not only from city but also from villages spread in various regions in Lampung Province until each student at the region could represent the condition of their residence mainly in supporting the success of online collaborative learning.

The research subjects were the subject teachers who conducted online learning. There were several aspects asked in this research to the subject teachers conducted through interview or questionnaires in google form. First, related to the facilities used in online learning. Second, the learning model used in online learning. Third, the obstacles encountered by the teachers or the students in online learning. Fourth, the effectiveness of online learning in building students' collaboration.

Research data analysis was conducted by using analysis model consisting of three stages namely data reduction, data display, and taking and verification of the conclusion. Research data analysis in data reduction stage is the stage of collecting the whole information needed from the interview result then the data were grouped. Data display stage is the data elaboration needed in the research and the data not needed in the research were eliminated. The stage of taking and verification of the conclusion is the stage of research data interpretation to take the conclusion based on the phenomenon obtained [10].

3. RESULTS AND DISCUSSION

3.1 Results

This research is divided into a couple of things made as the discussion material. To focus more on the

research result, the researcher group it into some points, namely:

3.1.1 Facilities used in online learning

The facility in the learning is an important thing as an effective learning support until it is expected that every teacher can utilize all learning media maximally even though the learning is conducted at each of students' home through virtual meeting. Therefore the teacher can instruct the students to utilize the learning media provided at their home so that the learning can be more meaningful.

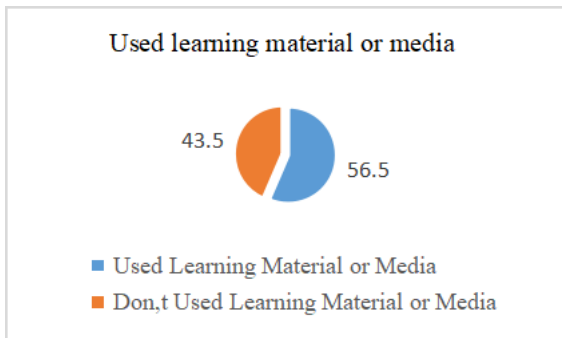


Figure 1. Used Learning material or media.

Based on the diagram above, out of 57 teachers that had obtained the questionnaire link, 46 of them had given their responses. Based on the responses given related to the utilization of learning media during learning at home, there is 56.6% teachers has utilized learning material or media at the students' home to be made as the learning medua during at home such as asking the students to use the ball, mattress, newspaper, battery, lamp, flag, cone, or paper, gadget, and the students are welcomed to choose their own media made as the learning media. By utilizing the learning media athome and chosen directly by the students will give them the feeling of self confidence. The teacher is also required to create the situation until the learning material delivered is always interesting and not boring. Therefore, the teacher must have high sensitivity to know if the learning activity needs condition or situation which makes the students excited or motivated again [3]

The teacher also has utilized various kinds of provided application as the media which connect the teacher and the students in the learning process using smartphone or laptop. The learning by using smartphone or laptop can increase the students' learning achievement (Aggrawan, A., 2019). Pangondian, R. A., Santosa, P. I., and Nugroho, E. (2019) state that there are many advantages of using information and communication technology in the implementation of online learning such as it is not limited in time and place [14]

Table 1. The Learning Application Used by The Teachers of Al Kautsar Senior High School.

No	Aplikasi	Persentase
1	Zoom/Google Meet	89,1%
2	Google Classroom	28,3%
3	Schollogy	23,9%
4	E-Learning Management System	84,8%
5	WhatsApp	69,6%
6	Quizizz	10,9%

Based on the table above, there are various applications used by the teacher in online learning process such as 89,1% has used zoom/meet application as the media of virtual meeting. The online learning using zoom cloud meeting has advantages and disadvantages such as wasteful of internet quota and less effective if more than 20 students (Naserly, M.K., 2020). Beside that, a stable internet network must also be provided so that the students voice can be heard clearly and the video can be seen perfectly until the learning material can be delivered well to the students. If the internet connection is low then it will become certain challenge for the teacher or the students. Online learning has weakness when the internet connection is low, and the teacher's instruction is less understood by the students [12].

Beside zoom application, the teacher also uses another application namely 84,8% has used (LMS) E-Learning Management System as the room in online learning which as been facilitated by the institution. In the amount of 28,8% uses google classroom, 23,9% uses Scoology, and 69,6% uses WhatsApp as the communication media. By utilizing various learning applications, then the students can explore the information that they do not gain yet because nowadays information technology development is getting more modern and easy to be accessed by students. The information support that is getting faster to be in the hand of students through smartphone and gadget open an extremely wide opportunity for them to access the news or information occurring in Indonesia and other countries [3].

Based on the survey result that the teacher has utilized the learning media and learning application maximally in the learning process with the purpose so that the students can obtain good learning service until it can improve their self confidence and competence.

3.1.2 The learning model used in online learning

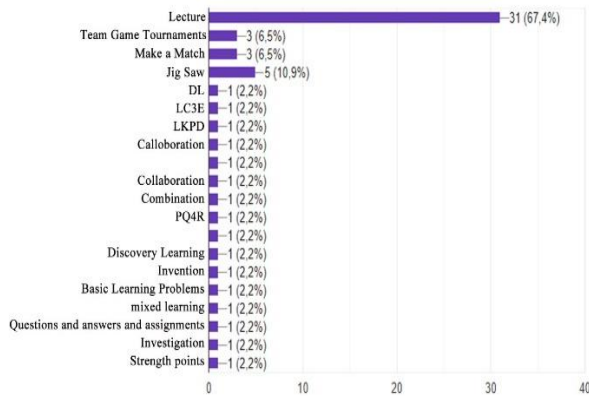


Figure 2. The learning model used by the teachers of Al Kautsar Senior High School

Based on the survey result which had been conducted by the researcher through fulfilling the questionnaire obtained the result that 67,4% teachers conduct the learning with lecture method through zoom/meet application because they feel difficult in conducting collaborative learning if implemented online caused by different location between the teacher and the students. Nevertheless, there are some teachers (6,5%) tried to use collaborative learning model such as Team Game Tournament and Make and Match. Collaborative learning technique is working together with other people (Elizabeth E. Barkley, 2014). If the students in certain group do not contribute and not responsible on the learning achievement in group or individual, then the group cannot be categorized into the group of collaborative learning [16].

Collaborative learning practice means working together in pairs or in small group to achieve the learning together. Collaborative learning means the learning through work group not work alone. Therefore the teacher encounters difficulty in building collaborative learning because the students and the teacher are in different places. This is in line with the opinion by Matthews [15] who explains that collaborative learning can be done if the students and the teacher work together in creating knowledge.

Even though the learning is conducted online but the teacher still tries to build collaborative learning to achieve the learning purpose at high school level by using various collaborative learning models such as make a match and team game tournament online but the result is not better than collaborative learning conducted directly face to face in the classroom.

3.1.3. The obstacles faced by the teacher or the students in online learning

The comfortability in learning is a must because without it in the learning then the meaning in learning will not be obtained. Comfortability must occur between two subjects namely the students and the teacher. Until

good collaboration can occur between the teacher and students in the process of learning activity.

The implementation of online learning is not without problem. In some countries, reported from those who adopted online learning that in average the real benefit is much smaller than expectation. The problem of internet network, less training, and less awareness are stated as the main challenges faced by the teacher [17]. Based on the survey result on 46 teachers at Al Kautsar Senior High School Bandar Lampung state that online learning has many obstacles especially the unstable internet network experienced by students mainly the students in remote area. Whereas in online learning the availability of technology and internet network is pivotal so that the online learning can run well. The usage of sophisticated device connected with internet connectivity is one of components to explore the data and information which support the material being studied/discussed in the class [3].

Another problem is the monitoring of students' behavior until experiencing difficulty in nurturing the character value to the students. While the purpose of middle education is to nurture the character values on the students through learning activities. That problem is in accordance with the research result by Purwanto et al. [18] namely there are some obstacles experienced by the students, the teachers, and the parents in online learning activity such as the mastery of technology is still less, additional cost of internet quota, the presence of additional job for parents to accompany their children in studying, the communication and socialization among students, teachers, and parents become less, and the work hour becomes unlimited for the teacher because they must communicate and coordinate with parents, other teachers, and the principal.

The character and skill owned by students are formed together in each learning process. Collaborative learning based on the theory of constructivism enables the students to have communication skill, thinking skill, and reasoning skill [19]. Until through online learning, the teacher feels that students' character formation is not maximal.

3.1.4. The effectiveness of online learning in building students' collaboration

Online learning implemented by Al Kautsar Senior High School in the effort to cut off the chain of Covid-19 spread using learning applications can be accessed through internet network. By using online learning, the teacher gives learning through virtual classes which can be accessed anywhere and anytime but at Al Kautsar Senior High School the learning supposes to be implemented in accordance with the learning schedules as the way to train students' discipline. Even though the learning is implemented in accordance with the learning schedule, but the learning process is more flexible and can be done anywhere and more time to access the information through internet can grow students

independency (self regular learning). The usage of online application can increase learning independency [20].

Online learning has particular challenge because the location between the teacher and students is separated until in the learning activity the teacher cannot monitor the students' activity directly during the learning process activity. Therefore there is no guarantee that the students really listen to the explanation from the teacher. Beside that the teacher is also very difficult in applying various collaborative learning model because the teacher feels difficult to coordinate the students who are in different places. Even though the coordination has been implemented through virtual meeting but the result is still not as effective as face to face learning in the class. Out of 46 teachers who had answered the questionnaire about the effectiveness of collaborative learning through online, 50% answered less effective.

The research result also reports that the students experience difficulty in understanding the learning material delivered by the teacher in online learning. The students feel that it is easier to understand face to face explanation directly compared to virtual meeting. The learning material delivered in the passage is not easy to understand by all students [21]. They assume that the assignment and the material delivered virtually are not enough because they need direct explanation from the teacher. According to the students the teacher frequently enters the class and explain the lesson directly is easier compared to the online material delivery.

Even though online learning is not effective for the teacher and students, it is effective to prevent the occurrence of crowd at the school environment especially in the environment of Al Kautsar Senior High School Bandar Lampung. According to Bell et al., (2017) online learning enables the occurrence of interaction through web although they are in far and different places [22]. The presence of teachers and students in different places during the online learning will eliminate physical contact directly and can encourage the behavior of social distancing.

Online learning implementation enables the students and the teacher to do the learning in different places. The students can access the learning material and assignment given by the teacher without direct meeting at school. This action can decrease the occurrence of crowd at school as occurs in face to face meeting directly.

However it is very unfortunate that there are parts of students who live in remote area and have less good internet access until online learning implementation shows new problem.

3.2 Strategic Step and Solution in Collaborative Learning

Online learning problem in education world during Covid-19 pandemic must be overcome seriously. All related parties must work together to achieve expected

educational purpose. This condition cannot be apart from the government policy and its implementation in the field so that collaborative learning can be run although it is online until the demand of 21st century learning can be implemented. There are things that must be considered by all parties in overcoming this problem, namely:

3.2.1 Government

The most important party in overcoming this problem is the government role. The government has issued budget allocation which has been decided through Presidential Instruction Number 4 year of 2020 about refocusing the activity, budget allocation, and procurement of goods and services in the acceleration of Covid-19 countermeasure. This instruction must be implemented with full responsibility and certainly must be on the right target. The minister of education and culture (Mendikbud) Nadiem Makrim in the cooperation meeting with commission X DPR RI will subsidize the credit for the students, teachers, college students, and lecturers. This credit subsidies is the effort so that online learning can be implemented optimally. Not only allocating the credit but also accompanied by the installation of internet network tower in all areas so that the students in rural area also can feel smooth internet network because until now there are still regions that do not have good internet access.

3.2.2 Parents

The parents' role is also important in guiding the students during learning at home. Although the teacher has conducted online learning to the students but the role and responsibility of parents as the main educator at home must run their own function well. This is the opportunity for the parents to give mental, attitude, and knowledge education during the children studying at home. The parents' supervision is pivotal so that the students are wise in accessing various information.

3.2.3 The teacher

The implementation of online learning must be as effective as possible. The teacher does not burden the students with the assignment given through online learning application to be done at home. The teacher does not only take position as the knowledge transferer but also practicing the knowledge as taught by Ki Hajar Dewantara namely *ing ngarso sung tulada, ing madya mangun karsa, tut wuri handayani*. The teacher must continue to improve their competence such as being skillful in utilizing technology and also skillful in giving the example to students. In the learning process, the teacher must use various learning models to be used during online learning until the learning meaning can be absorbed by students well and also can give the learning to students as required by 21st century learning namely

communication, collaboration, critical thinking, creative, and innovative.

3.2.4 The School

School is an institution which forms the students' characteristics. The school as the media of organizing education must be ready to adjust with the changes which will occur related to its students' education. The educational programs at school must give learning to students even though via distance learning. The learning facilities such as technology and internet network are the supporting factors of good online learning implementation. The implementation of online learning by each eather must obtain supervision from the school so that the learning still runs well and smart in delivering the learning which must be understood by the students.

4. CONCLUSION

In order to cut off the chain of covid-19 spread, the government has oblige the learning activities to be conducted online. Various platforms are used in online learning, while the teachers, students, and parents are expected to continuously do adjustment in line with the development. Through online learning the presence of teachers and students is in different places. This certainly becomes the new challenge for the teacher in growing collaborative learning on the students during the online learning.

Based on the research results show that online learning is less effective to grow collaborative learning compared to face to face learning directly because there are some problems namely the presence among students is in different places, unstable internet network mainly the students living in rural areas so the learning does not run optimally, the difficulty in applying various collaborative learning models, and also not all subjects have learning media at the students' home until the utilization of the learning media is not maximal. However distance learning is extremely effective in preventing the occurrence of crowd and social distancing can be implemented and certainly the transmission of covid-19 disease can be prevented.

The human resources and facilities are the determinant factors of the success of online learning. Until it needs communication, collaboration, cooperation, and good coordination in various related parties. The teacher's competence becomes the main determinant in successful online learning process until they must always enrich their competence and skill in utilizing educational technology and supported by the school policy in encouraging them to continuously learn. The related party also needs to evaluate online learning implementation so that the learning purpose can be achieved optimally. And the most important thing is in the future the government is ready to design the flexible curriculum supported by the learning

components which are ready to face online learning problems.

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