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Statistics Learning Using LSLC Assisted with Interactive Video in The Covid-19 Pandemic

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Abstrak

Penelitian ini bertujuan untuk mendeskripsikan bagaimana proses pembelajaran statistika dengan sistim LSLC berbantuan video interaktif di masa covid-19. Pembelajaran diawali dengan pemberian video interaktif pada tahap asinkronus pra belajar. Selanjutnya pada sinkronus siswa diberikan sharing task dan jumping task serta proses pembelajaran ditutup dengan pemberian tugas mandiri. Pada asinkronus pra belajar, siswa mengirimkan tugas mandiri di google classroom pada waktu yang telah ditentukan. Metode yang digunakan adalah deskriptif dengan 4 tahap kegiatan yang berupa plan-do-see-redesign. Penggunaan LSLC dalam proses pembelajaran di masa Covid-19 ini memberikan dampak yang positif karena dalam belajar secara daring siswa masih tetap menjalin komunikasi serta berkolaborasi antar siswa.

Kata Kunci: Statistika, LSLC, Pembelajaran di Masa Covid-19, Video Pembelajaran Interaktif

Abstract

This study aims to describe the process of learning statistics with the interactive video-assisted LSLC system during the Covid-19 pandemic. Learning begins with the provision of interactive videos at the asynchronous pre-learning stage. Furthermore, at synchronous students are given sharing tasks and jumping tasks, and the learning process is closed by giving independent assignments. In pre-learning asynchronous, students send independent assignments in google classroom at a predetermined time. The method used is a descriptive method with 4 stages of activity in the form of a plan-do-see-redesign. The use of LSLC in the learning process during the Covid-19 pandemic had a positive impact because in online learning students still maintain communication and collaboration among students.

Keywords: Statistics, LSLC, Learning in the Covid-19 Pandemic, Interactive Learning Videos

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INTRODUCTION

Statistics is one of the materials taught to eighth grade students in the 2013 Curriculum (Ministry of Education and Culture, 2017). Minister of Education and Culture, Nadiem Makarim said "Statistics is a language we need to understand and to access data critically". At this time, humans must be able to read and analyze data so that they are not left behind and fooled by data. In line with this, Yusuf (2017) said that learning statistics can be a means of scientific thinking so that statistical data in everyday life can be interpreted and understood. The purpose of learning statistics is to develop student reasoning using statistical ideas, understanding statistical information and making interpretations based on data (Sari, 2017). One of the important materials to study in statistics is the measurement of data centering. Surya (2017) says that the size of data centering can be a stepping stone to studying the next material, by understanding the basic measurement of data centering, students will find it easier to learn other statistical materials.

As an effort to foster students to improve the learning process, teachers together and continuously plan, implement, observe and report learning results. Here, the lesson study system is used (Sato, 2014). According to Arifin (2017) there are many benefits of using the lesson study system, including improving the quality of learning to be even better. LSLC is a school reform that is formed with a system of activities: collaborative learning in the classroom (collaborative learning), the formation of professional learning communities and collegality in the teacher room (Situmorang, K. & Putri, 2020). The vision of the Learning Community in learning is that teachers must care and continue to educate students who have problems by facilitating students so they can learn collaboratively (Fauziah, 2018). Then according to Arini and Putri (2018), the learning process must be innovative, designed together so that the learning process is meaningful and interesting, namely by using the LSLC system.

Research on learning using LSLC has been carried out by many other researchers, for example in the research of Marhamah et al. (2017), the focus of this research is to see the effect of the collaborative learning model based on LSLC on physics learning for eighth grade students. Then in Putria and Putri's research (2015) which examined the subject of average counting with PMRI in seventh grade, as well as Saskiyah and Putri (2020) who used LSLC and PMRI to see the ability of mathematical representations in the material of addition and subtraction operations on fraction numbers in seventh grade.

Based on government policies regarding efforts to prevent Covid-19 in the field of education, a distance learning process (PJJ) is carried out in a network (online) with an online system (Sari, et al., 2020). According to Ahmad (2020) distance learning is a learning process that is carried out in the form face-to-face among teachers and students but in different places. In order for learning to be applied creatively and innovatively, a blended learning strategy is used (Wardani, 2018). Pakpahan (2020) said that to meet educational standards technology was used so that the learning process could be carried out well even though it was in the middle of the Covid-19 pandemic, for example making interesting animation-based learning videos. The use of instructional videos is also able to support students to be active in learning independently (Wardani & Syofyan, 2018).

This study focuses on the process of learning statistics with the LSLC system assisted by interactive videos during the covid-19 period. With the aim of research to assist students in learning statistics during the covid-19 period using LSLC.

METHODS

The type of research used in this research is descriptive research. This research will provide an overview of how the interactive video-assisted statistics learning process with the LSLC system during the covid-19 period. The subjects of this study were eighth grade students of Junior High School 17 Palembang. Data collection was carried out by observation, tests and interviews.

RESULTS AND DISCUSSION

There are four stages in LSLC according to Sato (2014), i.e. Plan-Do-See-Re Design which will be described as follows:

Plan

This stage is the stage of preparing a learning plan that is believed to be able to generate student participation and so that learning can be carried out effectively. The plan stage is carried out several times in order to arrange learning tools such as lesson plans, sharing tasks, jumping tasks, test questions, learning videos as well as determining research subjects, determining the schedule of learning activities and choosing one of the teachers to be the model teacher. Teachers and researchers make learning tools and discuss together, express ideas or ideas they have about the material to be taught in the learning process later.

Figure 1. Plan stage

Do

At this stage, the design that has been prepared will be applied to the learning process. Where the teacher will carry out the learning while the others act as observers. The observations carried out focused on student learning activities with the planned procedure guidelines and instruments.

According to Wahyuni (2018) the learning process during the Covid-19 period used blended learning which consists of pre-learning Asynchronous, Synchronous and post-learning Asynchronous which will be explained as follows:

In the pre-learning asynchronous stage, the teacher sends an interactive video to the google classroom and asks students to watch the video first and take notes on important things. Then, the teacher also sends a zoom meeting link for virtual face-to-face meetings (synchronous stage).

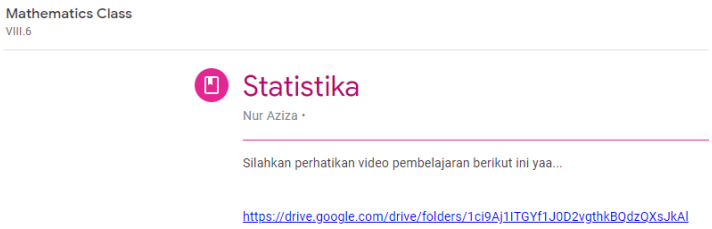

Figure 2. Google classroom for stuents class VIII.6

At the Synchronous stage, learning activities are carried out as usual, it's just that during the Covid-19 period, learning is carried out with an inseparable distance. Starting with the opening, the teacher greets and invites students to pray before starting learning activities. The teacher mentions the learning objectives, gives an apperception that reminds students what the data centering measures are and provides motivation to students to remain enthusiastic in learning even though they are separated from the distance from the teacher and their friends.

Furthermore, the core activities in the learning process with the LSLC system are divided into two, namely giving sharing tasks and jumping tasks (Octriana, 2018). Previously the teacher asked the students whether they had watched the interactive learning video that was given yesterday? It turns out that there are some students who have not watched the interactive learning videos that have been given. Therefore, the teacher shares screen sharing tasks and asks students to write down the questions that have been given. After all students get the sharing task, the teacher divides the students into several groups using the breakout zoom feature, the group consists of 4 students (2 girls and 2 boys) who have heterogeneous abilities.

At the breakout zoom, the teacher alternately enters each group to see the extent of student problem solving. In completing the sharing task, students are given 20 minutes, and on the sharing task sheet the students are guided in completing it, so that in solving it, students do not find difficulties and can complete the sharing task on time.

After all the students have finished the sharing task, the teacher returns the students to the main section, and asks the students to write down the jumping task and then the students at the breakout zoom to collaborate in completing the jumping task. In the first 10 minutes of completing the jumping task, almost all students experienced difficulties. Therefore, the teacher provides directions and invites students in the group to read the questions so that students know what problems are given? What is known, then the teacher asks what is the first thing that will be done to complete the jumping task? For students who have high abilities, they understand the problems given and can solve them. However, students who have moderate and low abilities still experience some difficulties. Next, the teacher directs students who have not been able to solve the problem to say "please guide me" in the part that is not understood.

After all students complete the jumping task, the teacher returns the student to the main section and the teacher asks the student who is weakest in delivering the results of completing the sharing task and jumping task. From the completion of the students on the jumping task there were a few mistakes, then the teacher invited all students to discuss the correct solution. After all students agree on the results of the completion, the teacher invites students to provide conclusions from today's learning process.

The learning process is closed by giving students independent assignments that are done independently and collected in Google Classroom within a predetermined time.

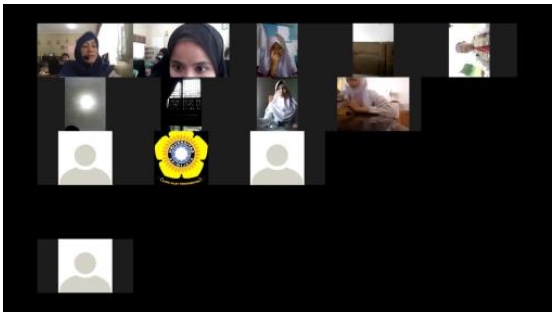

Figure 3. Introduction

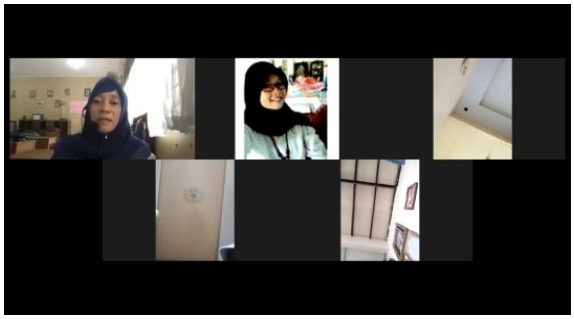

Figure 4. Breakout Zoom

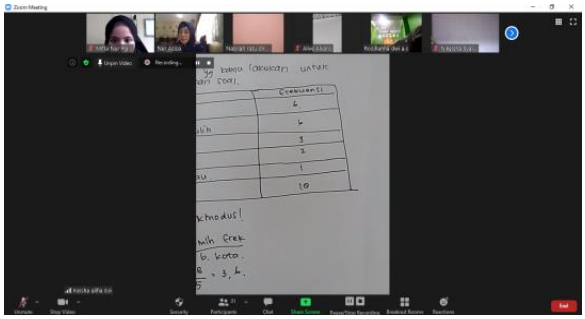

Figure 5. Presentation

In the post-learning asynchronous stage, students send the results of the completion of sharing tasks, jumping tasks and independent assignments that have been given in the google classroom. Then the teacher assesses and returns it to the students.

The results of this study indicate that the use of the LSLC system in the learning process during the Covid-19 period is very suitable for use. Where in the current learning process that uses an online system in a network, with LSLC students are required to collaborate in solving the problems given. So that students who have weak abilities or students who are not able to solve problems can ask for help from friends who are able to solve the problems, and it is hoped that all students can solve the problems given and students with low abilities do not feel alone or overwhelmed in this online learning process.

See

This stage aims to find the advantages and disadvantages of implementing the learning process that has been carried out. The model teacher as an object begins the discussion by conveying impressions, constraints, experiences regarding the learning process that has been carried out. Furthermore, the opportunity was given to the observers to explain the student activities they observed and provide input to the model teacher in the form of solutions, criticisms or suggestions in good language and wisely so that they did not hurt the model teacher. Based on all input, teachers can re-design the next lesson to make it better.

Re-Design

This stage is intended to improve the design of the learning process and be documented if it needs to be improved based on the results at the see stage that have been agreed upon by the teacher involved in the three previous stages.

CONCLUSION

Based on the results and discussion, we know that by using LSLC, the learning process during the Covid-19 pandemic well done, this is evidenced by the collaboration between student to student and student to teacher which can facilitate solving the problems given.

Suggestions from researchers, the use of interactive video is good to use but must pay attention to the characteristics of students, because in the online learning process the teacher cannot ensure that all students have watched the video that has been given. Furthermore, not all students are accustomed to saying "please teach me". So, as a teacher, we must pay more attention to which students are not able to solve the problem.

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