Lesson Study Model Based on Learning Management *System* in Improving Learning Outcomes

Otto Fajarianto, Aghnia Dian Lestari, Khaerudin Imawan
Universitas Swadaya Gunung Jati, Cirebon, Indonesia
ofajarianto@gmail.com, aghniacahya55@gmail.com

Abstract: The process of learning activities sometimes lecturers use monotonous methods, so less attention of students. This affects the ability of students in understanding the material delivered by lecturers. The situation of the Covid-19 pandemic makes learning activities carried out online, so that the former tends to how lecturers teach *(teacher centered)*to become students toimprove the quality and quality ofstudent learning. The purpose of the *lesson* study-based problem-based *learning* implementation program is to describe the process and know the obstacles that occur in learning that include planning, implementation, and reflection when developing methods in photography courses. Lesson Study can be used as an alternative change in effective and innovative learning practices so that the way to teach lecturers and learning systems becomes better thanbefore.

Keyword: Lesson Study, Learning Management System, Photography

INTRODUCTION

Industrial revolution era 4.0 is an era of digitization, optimization and customization of production, adaptation, interaction between humans and machines, *automatic data exchange and communication, and*the use of informationtechnology. This era has a major effect on changes in the characteristics of needs in the business and industrial world and the behavior of society in general. In addition to the era of digitalization, pandemic Covid-19 changed the way learning is due to the application of social *distancing.*

Based on UNESCO data, as of May 25, 2020 approximately 1,186,127,211 students have been affected due to school closures during the pandemic, 144 countries have implemented national closures, impacting 67.7% of the world's student population[1]. Based on the circular of the Minister of Education and Culture of the Republic of Indonesia No. 4 of 2020, about the implementation of education policies in the emergency period of the spread of *Coronavirus Disease* (Covid-19), learning is carried out from home online. Globally, the average school closure due to a pandemic for 5.5 months is equivalent to two-thirds of the academic year. UNESCO encourages countries to include education as a priority program for pandemic response[2].

Universities as a forum to prepare and produce the next generation of the nation, must respond appropriately to these challenges. Universities are expected to answer the challenges of facing technological advances and competition in the world of work in the era of globalization, by

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[1] Tribun Palu, "UNESCO Catat Ada 113 Negara Yang Tutup Fasilitas Pendidikan Pasca Mewabahnya Virus Corona - Tribun Palu," *2020*, last modified 2020, accessed April 5, 2020, https://palu.tribunnews.com/2020/03/18/unesco-catat-ada-113-negara-yang-tutup-fasilitas-pendidikan-pasca-mewabahnya-virus-corona.
[2] Kompas, 2021

producing skilled graduates. In this situation, students are not allowed to go to campus, the alternative is to do online learning.

An important part of online learning is internet coverage, computer availability, and smartphones[3]. Universitas Swadaya Gunung Jati as LPTK provides *learning management system* (LMS) based services that are LMS-PINTAR that can be used by all lecturers and students in carrying out online learning. Some features that can be used by lecturers include *video conference, chat* as a discussion forum, attendance list, assessment, online quiz, online exam, data storage, announcement and attaching *files* in the form of videos, URLs, pdf, and word. This Smart LMS platform can be accessed by lecturers and students through the https://learning.ugj.ac.id/page.

Lecturers utilize LMS PINTAR facilities provided by the campus to support distance learning while maintaining the quality of learning, including choosing the right model and methods, using learning media, props, and teaching materials. There needs to be a learning model. One of the learning models is *lesson study.* Lesson Study is an ongoing process, where teachers can develop learning and professional skills to make the classroom more active and improve student learning outcomes [4]. In addition, *the* Lesson Study approach is collaborative learning offers alternatives to build and improve the learning process climate to be more quality.

The application of Lesson Study as a form of professional development of a lecturer, becomes a challenge in the present. The Lesson Study stages can be seen below:
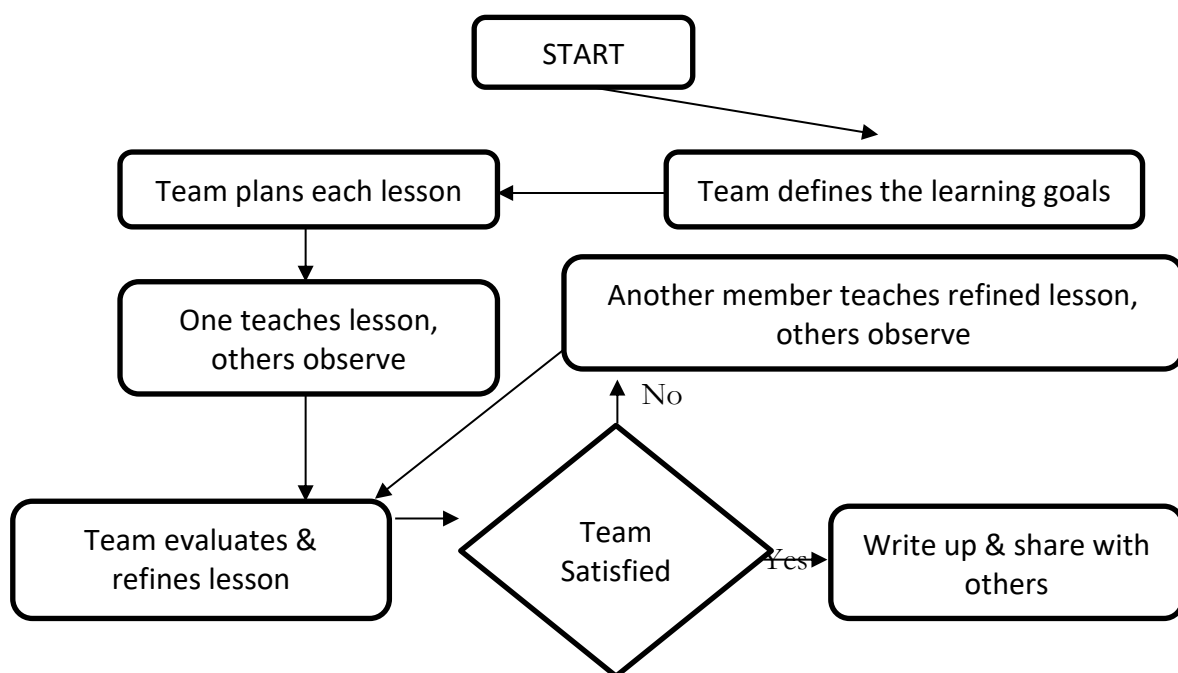

Figure 1. Lesson Study Stage (White & Lim, 2007)

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3 Giorgi Basilaia and David Kvavadze, "Transition to Online Education in Schools during a SARS-CoV-2 Coronavirus (COVID-19) Pandemic in Georgia," *Pedagogical Research* (2020); Muh Barid Nizarudin Wajdi et al., "Pendampingan Redesign Pembelajaran Masa Pandemi Covid-19 Bagi Tenaga Pendidik Di Lembaga Pendidikan Berbasis Pesantren Di Jawa Timur," *Engagement: Jurnal Pengabdian Kepada Masyarakat* 4, no. 1 (2020): 266–277.

4 Allan Leslie White and Chap Sam Lim, "Lesson Study in Asia Pacific Classrooms: Local Responses to a Global Movement," *ZDM - International Journal on Mathematics Education* (2008); Kawsar Ali, "Zoom-Ing in on White Supremacy," *M/C Journal* (2021).

The Lesson Study stage begins by creating a learning plan, determining the observer in each group while one lecturer teaches. After the learning process, the team evaluates and corrects deficiencies during learning. If the team feels satisfied with the learning process, then the cycle can be stopped and disseminated openly. If there are still shortcomings, the team designs the learning process again, and the cycle continues to repeat until it achieves the expected goal.

Thereis one course that must be followed by communication students, one of which is Photography. The discussion contained in this course is the basic concept of photography, the type and characteristics of the camera, shooting techniques, utilization of light sources, and dark room processes. The difficulties experienced by students in attending Photography lectures are with face-to-face limitations due to the Covid-19 pandemic so they are limited in the practice of photography.

METHODS

This research uses qualitative descriptive methods. The use of this method with the aim of generating desriptive data in the form of images of written or oral words from people[5] In addition,descriptive etode aims to systematically describe the facts or characteristics of a particular population or a particular field factually and carefully [6] Use this method to describe the application of Lesson Study in the learning of photography subjects.

The subject of this study involves 15 level III students in the Semester Even Year 2020/2021, especially those who take PhotographyCourses. In the implementation of this research there is a planning stage, namely (1) Phase 1, namely student observation in photography courses, (2) Phase 2 is to focus Lesson Study with themes and problem fokus with the aim of solving problems withdetails (a) Plan is to do collaborative planning between students, lecturers who master courses, and observers, (b) Do, namely model lecturers carrying out learning that has been planned and observed by observers, and (c) See, which is in the form of reflection of the results of learning implementation (do) based on observation results.

The data collection techniques used in this study are observation and recording in teaching activities contained in LMS PINTAR. Data from research results in the form of student activities recorded in LMS PINTAR, learning outcomes, and documentation. The implementation of lesson's tudy includes preliminary activities, core activities and closing activities. The data obtained is then processed descriptively through the stage of data reduction, presentation of data and withdrawal of conclusions.

RESULT AND DISCUSSION

Lesson Study is carried out in three stages, namely the planning*stage (plan),*the implementation stage*(do),*and theobserving stage*(see).* Lesson *Study* activities are carried out as many as 3 (three) cycles with the following results:

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[5] Lexy J. Moleong, "Metodologi Penelitian Kualitatif (Edisi Revisi)," in *PT. Remaja Rosda Karya*, 2017, 424.
[6] Sugiono, *Metode Penelitian Pendidikan (Pendekatan Kuantitatif, Kualitatif, Dan R&D)* (Bandung: Alfabeta, 2010).

Cycle Learning 1

1st cycle learning with the material delivered related to the types of lenses. On this occasion the Lesson Study team first gave a briefing on the pattern of lectures given for one semester.

Figure 1. View on LMS UGJ Lens Material Photography Course

Then the presentation of the material was carried out in a *teaching* team consisting of 3 lecturers, namely Dr. Otto Fajarianto, M.Kom, Khaerudin Imawan. M.I.Kom. and Aghnia Dian Lestari, M.I.Kom. When providing material the students pay attention well and clearly through the Google Meet video *conference* device. The media used to deliver material using Microsoft Power point where the content in it contains video, images and text. This is done to build more effective interaction between lecturers and students through online learning.

Figure 2. Video View During Material Exposure

Cycle Learning 2

Learning 2nd cycle withn material delivered is photojournalism. Before the implementation was carried out, the LS team conducted learning planning by preparing learning devices consisting of Lesson Design, creating materials with PPT, and preparing videos to support learning. Once the learning device is ready, the material is uploaded to lms UGJ PINTAR.
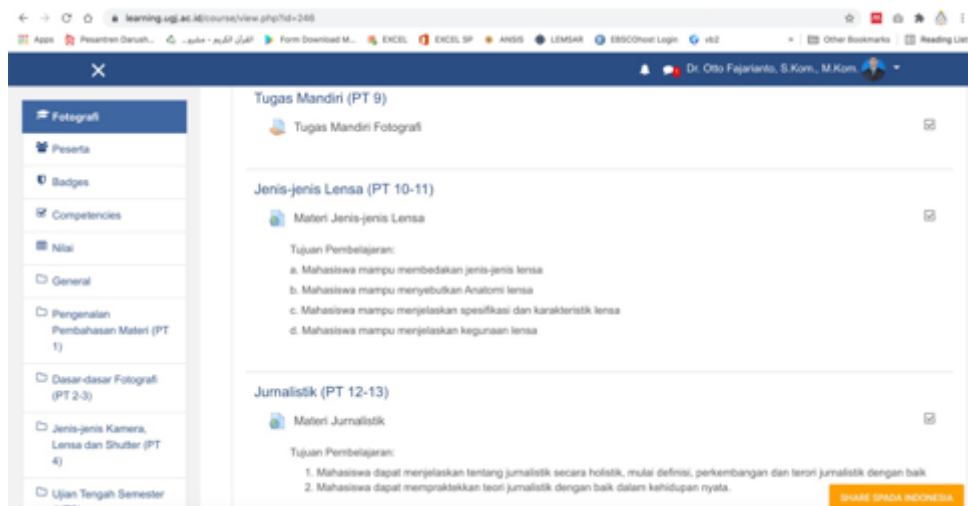
Figure 3. View on LMS UGJ Journalism Material Photography Course

In the *do* stage, theLS team began by opening a discussion on the basics of journalism such as definitions, real-life journalistic developments to students.
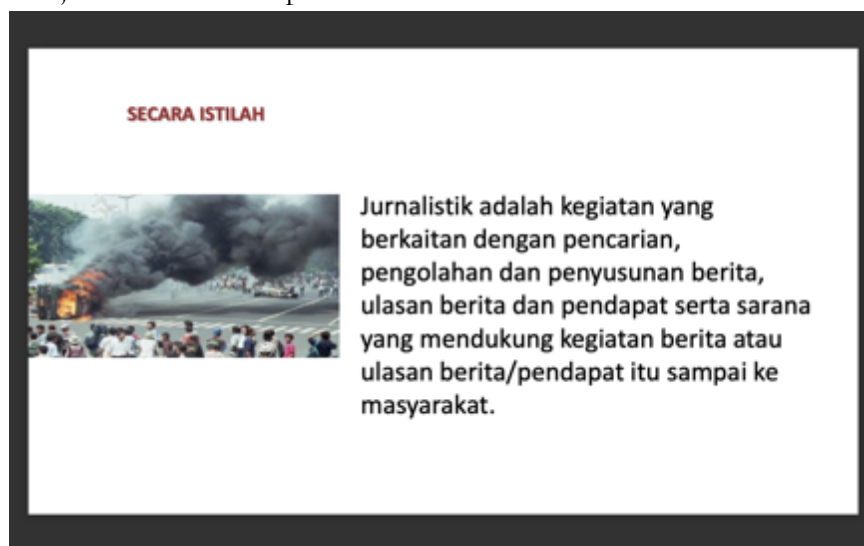

Figure 4. Photojournalism Material View

Then, continued with the presentation by lecturers about products in photojournalism.
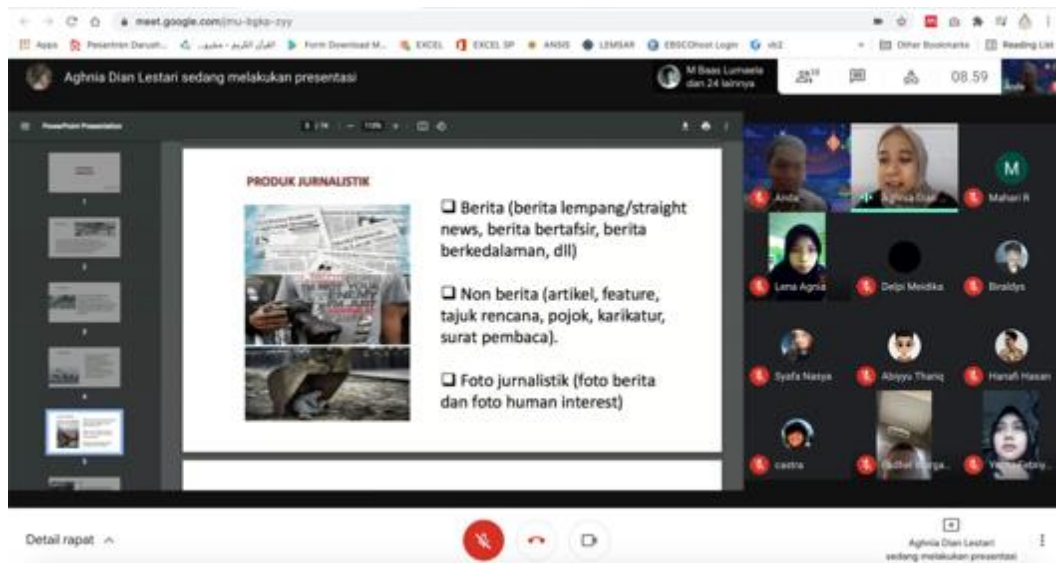
Figure 5. Display of Journalistic Product Material Exposure

Student activity in cycle 2 is increased, students begin to be effective in discussions, and answer every question posed by lecturers. Implementation in this second cycle of learning uses Google Meet, with material that has been uploaded on lms, as well as a list of student attendance. The implementation of learning in this cycle goes well in terms of understanding the material to the types of photography in journalism. The obstacle faced in this cycle is that there are still students who are constrained by connections when *joining webmeeting* and still some of them disable the camera during learning.

Cycle Learning 3

3rd cycle learning with the topic of evaluation of the learning process in one semester. On this occasion the LS team tried to explore the shortcomings and advantages in providing material to students and *teaching*teams. In addition, the team also reviewed the material that had been discussed at the 1st to last meeting and the grid for the preparation of the final semester exam. Students must complete the tasks given by lecturers at previous meetings. This session is also the last cycle in the lesson *study* process.

Discussion

Since the enactment of Distance Learning (PJJ) or online since March 2020 due to the Covid-19 pandemic several learning *platforms* are used to support learning activities including WhatsApp Group, Google Classroom, Schoology, Zoom Cloud Meeting, Google Meet, and *e-learning.* One of the e-learning instituted by Universitas Swadaya Gunung Jati is LMS UGJ PINTAR with https://learning.ugj.ac.id/link. LMS UGJ PINTAR has complete features, including discussion forums, *video*conferences, student attendance lists, how many student pages follow online learning, online quizzes, and others. This is in line with [7] that based on the final results of the study showed that there was an increase in student learning participation in discussion forums using Moodle-based *e-learning* (LMS). Students are active in discussion and listen to lecturer explanations through learning videos that have been prepared at the *plan*stage. The concept of

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[7] (Fatmawati 2019)

conventional education changed a lot after the advent of the Internet. The model of lectures, libraries, assignment creation, filling out study plans and so on has been adapted to what can be done over the Internet[8] This gives a positive role for technology in life, especially in online learning.

The LS method provides opportunities for quality online learning because it consists of three stages, namely *plan, do, see*. Before teaching, lecturers and teams plan learning both in terms of materials, media and collaborative evaluation. The development of collaborative learning models can empower citizens to learn in improving their spirit and learning outcomes, they should not be viewed as objects but as subjects. Indeed, the citizens of learning should be subjects that can determine their own success in learning, the term is *student centered*[9].

At the implementation stage, model lecturers are assisted by other lecturers as observers to observe the online learning process. This allows observers to observe each student activity such as student engagement, pay attention to how students work, what problems they encounter, and how they try to solve them[10].

CONCLUSION

After carrying out this researchprogram, there are conclusions, including (1) The process of implementing *Problem Based Learning* provides opportunities for the implementation of quality online learning consisting of three stages, namely *plan, do, see*. So that each stage of learning prepares material, media and evaluation in collaboration; (2) During the learning process there are several obstacles, such as there are still students who disable the camera during the lecture, the activeness of students in some sessions is still lacking, and (3) The implementation of Problem Based *Learning* Based Lesson Study in This Photography Course can improve the performance of the teaching team in preparing, implementing and reflecting lectures. Through Lesson Study activities resulted in effective and efficient learning methods to be used in learning on each cycle.

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