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# EFFECTIVENESS OF ONLINE LEARNING USING VIRTUAL CLASS DURING THE COVID-19 PANDEMIC

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#### Abstract

The Covid-19 outbreak in several countries, including Indonesia, does not seem to have ended yet. This has prompted various parties to try to stop and prevent the spread of the Covid-19 virus. One way that the Indonesian government has taken to prevent the spread of the virus is to close all public facilities. Unila took part in stopping the spread of Covid-19. This study aims to map a picture of the effectiveness of online learning using Virtual Class (VClass) during the Covid-19 pandemic. Descriptive quantitative research focuses on the effectiveness of online learning. The population of this research is the students of PTI FKIP Unila. The sample used was 35 students who were selected using simple random sampling technique. The online learning questionnaire was used as a data collection instrument. Data were analyzed using descriptive statistics. The results showed that students rated online learning using VClass as very effective (2.9%), effective (34.3%), moderately effective (40%), and less effective (22.9%). To improve the quality of online learning, the online learning concept solutions by Unila Lecturers: (1) Reduce online assignments; (2) Adding learning videos; (3) Do not use the group assignment discussion method. Meanwhile, the solution for Unila's UPT TIK's Main Duties: (1) Repairing the VClass server; (2) Increase the max file size that can be sent; (3) Change the menu or appearance and make it an apk.

Keywords: Effectiveness, Covid-19 Pandemic, Online Learning, Virtual Class

#### **INTRODUCTION**

The Covid-19 outbreak that has occurred in several countries in the world, including Indonesia, does not seem to have ended yet. Based on official data released by the Ministry of Health of the Republic of Indonesia which can be accessed through the address Sehatnegeriku.kemkes.go.id and covid19.kemkes.go.id as of January 28, 2021, there are 1,037,993 positive records in Greater Indonesia, recovered as many as 842,122 people, and died as many as 29,331 people. This makes various parties seek to stop and prevent the spread of this virus. One way that the Indonesian government has taken to prevent the spread of this virus is to close all schools, offices, and other public facilities.

Lampung University is taking part in stopping the spread of Covid-19. The existence of the Covid-19 pandemic has an impact on educational problems in Indonesia, learning currently cannot

be carried out face-to-face because it is hampered by the Covid-19 pandemic so learning must be carried out online with distance between educators and students. Online learning is carried out in the midst of this pandemic so that the learning process can still run smoothly even though it is only carried out online and so that learning can still run smoothly and effectively. Although learning is carried out online, the learning process must continue to run effectively, the effectiveness of the intended learning as effective in terms of the accuracy of educators in the preparation of teaching programs, the attitude of educators in managing classroom conditions, communication between educators and students can still run smoothly, the accuracy of educators in choosing sources, and learning media used in online learning, as well as the accuracy of educators at the time of evaluation.

The Virtual Class used by the University of Lampung with the vclass.unila.ac.id link is a forum for lecturers to prepare online learning processes, both synchronously and asynchronously. There are three parts to the Virtual Class, namely Class Configuration, Teaching Material Management, and Activity Management. Within these sections there are subsections. The configuration consists of Class Administration, Turn Editing On, and Edit Settings. Management of Teaching Materials consists of Books, Files, Folders, IMS Content Packages, Labels, Pages, and URLs. While Activity Management consists of Assignments, Chats, Forums, and Quiz.

The benefit of this research is to find a solution to the concept of online learning in improving the quality of online learning. The solution is to reduce online assignments, add learning videos, and not use the group assignment discussion method. In addition, this research is also useful for finding solutions for the UPT ICT Unila Main Task Force in improving the quality of online learning. The solution is to fix the VClass server, add the max file size that can be sent, and change the menu or appearance and make it an apk.

#### **METHOD**

This research is a descriptive quantitative research that focuses on the effectiveness of online learning using Virtual Class. The population used is all PTI FKIP students at the University of Lampung who are in charge of the Vocational Education Curriculum. The sample used was 35 students who were selected using a simple random sampling technique by considering the homogeneity of the population. The online learning questionnaire was used as a data collection instrument. Data were analyzed using descriptive statistics.

#### Research Time and Place.

This research is a descriptive quantitative research that focuses on the effectiveness of online learning using Virtual Class. The population of this study were all students of PTI FKIP Unila. The sample of this study amounted to 35 students who took the Vocational Education Curriculum course. The research was conducted in January 2021, using a google form filled out by PTI FKIP Unila students.

## Data, Instruments, and Data Collection Techniques.

Sugiyono (2014) said that the type of primary data is a data source that provides data to data collectors. The researcher collected data directly through a google form whose link was distributed to semester 3 and 5 students who took the Vocational Education Curriculum course at the PTI FKIP Unila Study Program. The data is in the form of a questionnaire whose statements are adopted from previous research. The questionnaires given are student statements related to the activities they do most during Work from Home (WfH), physical complaints experienced during online learning, psychological complaints experienced by students during online learning, preferred online learning models, preferred online learning media, methods online learning that is preferred when learning

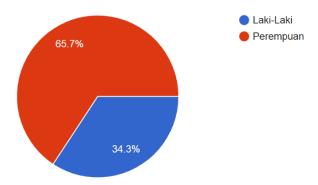
online, the obstacles faced during online learning, as well as an assessment of the effectiveness of online learning using Virtual Class.

## Data analysis technique.

The data that has been collected by the researcher through google form was analyzed by using computerized descriptive statistics. The research data consists of 9 points which are presented, both in the form of images and graphs. The data taken are: (1) Number of Respondents, (2) Activities that are mostly done during Work from Home (WfH), (3) Physical complaints experienced during online learning, (4) Psychological complaints experienced by students during online learning, (5) Preferred online learning model, (6) Preferred online learning media, (7) Preferred online learning method when learning online, (8) Obstacles encountered during online learning, and (9) Assessment of the effectiveness of online learning using Virtual Class.

#### RESULTS AND DISCUSSION

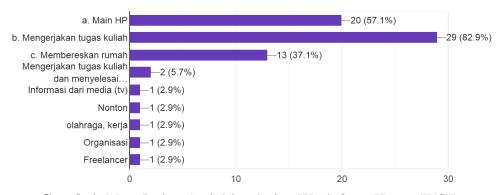
Based on the research that has been done, the results and discussion are obtained as follows. **Number of Respo ndents** 



**Figure 1.** Number of Respondents

Figure 1 shows that there are 35 respondents who were sampled in this study. Respondents consisted of 12 men (34.3%) and 23 women (65.7%).

# Aktivitas yang Paling Banyak dikerjakan selama Work from Home (WfH)



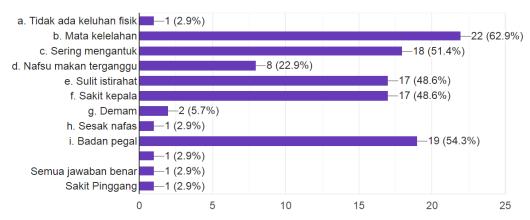
**Graph 1.** Most Doing Activities during Work from Home (WfH)

Graph 1 shows the activities that are mostly done during Work from Home (WfH). Based on Graph 1, it is known that 29 people (82.9%) do college assignments, 20 people (57.1%) play cellphones, 13 people (37.1%) clean the house, 2 people (5.7%) do homework. study and complete campus assignments, and 1 person (2.9%) performs activities, whether seeking information from the

media (TV), watching movies, sports, organizations, or freelancers. Based on this data, it is known that the percentage of students who choose freelancers, organizations, sports, work, watching movies, seeking information from the media is the same, which is 2.9%.

The results of this study are in line with Mustakim's (2020) research which says that the most frequently done activity during Work from Home (WfH) is doing assignments. During WfH, respondents spend the most time in a day doing assignments. In addition to working on assignments, other activities carried out by respondents are playing cellphones, because playing cellphones becomes a distraction when respondents are bored with college assignments being done.

### Physical Complaints experienced during Online Learning

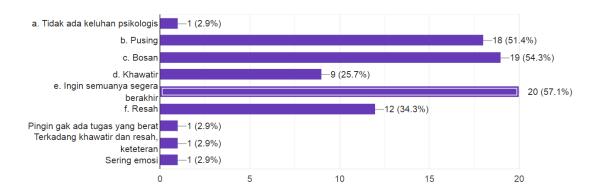


**Graph 2.** Physical Complaints experienced during Online Learning

Graph 2 shows the physical complaints experienced during online learning due to the use of cellphones or laptops with too frequent intensity and too long duration. Based on Graph 2, it is known that 22 people (62.9%) experienced eye fatigue, 19 people (54.3%) experienced body aches, 18 people (51.4%) often felt sleepy, 17 people (48.6%) had difficulty breathing. rest and headache, 8 people (22.9%) had disturbed appetite, 2 people (5.7%) had fever, and 1 person (2.9%) had physical complaints, either shortness of breath, all answers were correct, back pain, or no physical complaints.

Excessive use of cellphones or laptops has an impact on these physical complaints. The results of this study are in accordance with the results of research conducted previously by Mustakim (2020) which showed that the physical complaints experienced during online learning were eye fatigue. Eye fatigue according to Roestijawati in Dessy W. P (2018) can occur if the eyes are focused on an object for a long time with a close distance to the eye so that the eye muscles have to work harder to see objects that move in very close distances, especially when accompanied with dazzling lighting. Conditions like this cause the eye to have to adapt by accommodating for a long time, resulting in a decrease in the accommodation power of the eye. In addition to physical complaints, students also experience various psychological complaints as shown in Graph 3.

## Psychological Complaints experienced by Students during Online Learning Pembelajaran



Graph 3. Psychological Complaints experienced by Students during Online Learning

Graph 3 shows the psychological complaints experienced by students during online learning. Based on Graph 3, it is known that 20 people (57.1%) want everything to end soon, 19 people (54.3%) are bored, 18 people (51.4%) are dizzy, 12 people (34.3%) are restless, 9 people (25.7%) were worried, and 1 person (2.9%) experienced psychological complaints, whether they wanted no heavy tasks, sometimes worried and restless, overwhelmed, or often emotional. However, there are also those who do not have psychological complaints.

Similar research results were carried out by Mustakim (2020) who said that the psychological complaints experienced by students during online learning were that they wanted everything to end soon. This indicates that online learning is enough to make the respondents psychologically disturbed.

#### **Preferred Online Learning Model**

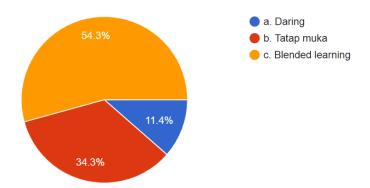


Figure 2. Preferred Learning Model

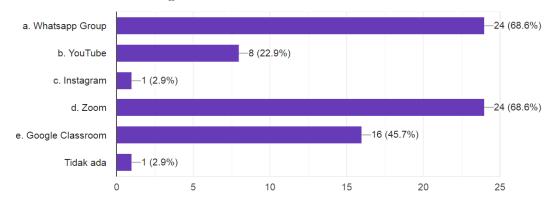
Figure 2 shows the results of descriptive research to describe the preferred learning model. Based on Figure 2, it is known that 19 people (54.3%) like blended learning, 12 people (34.4%) like face-to-face, and 4 people (11.4%) like online.

This study is in line with the results of research by Pozgaj & Knezevic in Riskey (2020) which says that 76.07% of students tend to choose a combination of online learning. This is because students are willing to accept innovation because e-learning is a new form of learning so that in the transition process, students tend to choose a combination of learning with online learning.

The results of Ali's research (2020) also show that students feel more comfortable in expressing ideas and questions in online learning. Following learning from home makes them not

feel psychological from their peers which they usually experience when participating in face-to-face learning. The absence of lecturers directly or physically also causes students to feel not awkward in expressing ideas.

## **Preferred Online Learning Media**



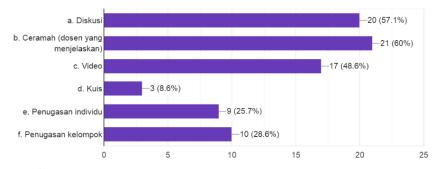
Graph 4. Preferred Online Learning Media

Graph 4 shows the preferred online learning media. Based on Graph 4, it is known that 24 people (68.6%) like Whatsapp Group and Zoom, 16 people (45.7%) like Google Classroom, 8 people (22.9%) like YouTube, and 1 person (2.9%) likes Instagram.

Ali (2020) explained that with the online learning model, lecturers provide lectures through virtual classes that can be accessed anywhere and anytime, not bound by space and time. This condition allows students to freely choose which courses to take and which assignments to do first.

The results of Oktafia's research (2020) also say that the online learning process has so far been done by giving assignments via whatsapp, video conference, google form, or through special applications available. Although Zoom is considered quite quota-consuming, the use of Zoom as an online learning medium is quite attractive to students. Because through Zoom, lecturers can explain lecture materials directly such as face-to-face and students can ask questions directly if there is material that is not understood.

## **Preferred Learning Method when Learning Online**



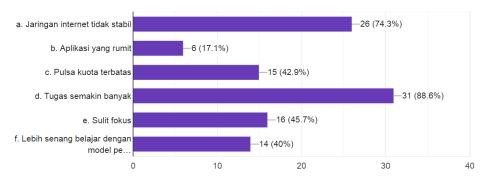
**Graph 5.** Preferred Learning Methods when Learning Online

Graph 5 shows the preferred learning method when learning online. Based on Graph 5, it is known that 21 people (60%) like lectures (lecturers who explain), 20 people (57.1%) like discussions, 17 people (48.6%) like videos, 10 people (28.6%) liked group assignments, 9 people (25.7%) liked individual assignments, and 3 people (8.6%) liked quizzes.

Oktafia's research results (2020) reveal that online learning makes students more independent, because it places more emphasis on student centeredness. They are more daring to express their opinions and ideas, and the government has also provided several platforms that students can use to learn.

This is supported by the results of research by Riskey (2020) which says that the use of online learning will be very effective if it meets the essential components in learning, namely discursive, adaptive, interactive, and reflective with elements that are very good if integrated with the learning environment so that it can become online learning that is integrated with the environment or fulfills the components of the digital learning ecosystem because it can accommodate the learning styles, flexibility, and learning experiences of students so that they can create positive feelings.

## **Obstacles encountered during Online Learning**

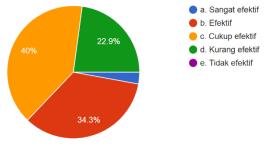


Graph 6. Obstacles faced during Online Learning

Graph 6 shows the obstacles faced during online learning. Based on Graph 6, it is known that 31 people (88.6%) face more and more task problems, 26 people (74.3%) face unstable internet network problems, 16 people (45.7%) have difficulty focusing, 15 people (42 people) ,9%) faced the problem of limited quota pulses, 14 people (40%) faced the problem of preferring to learn with face-to-face learning models, and 6 people (17.1%) faced complex application problems.

The results of Mustakim's research (2020) also said that the obstacles faced during online learning were the increasing number of tasks and unstable internet networks. This is an obstacle that must be resolved.

#### **Assessment of the Effectiveness of Online Learning Using Virtual Class**



**Figure 3.** Assessment of the Effectiveness of Online Learning Using Virtual Class Figure 3 shows an assessment of the effectiveness of online learning using Virtual Class. Based on Figure 3, it is known that 14 people (40%) rated online learning using Virtual Class as quite

effective, 12 people (34.3%) rated it as effective, 8 people (22.9%) rated it less effective, and 1 person (2, 9%) rate very effective.

This research is in line with the results of Ali Sadikin's research (2020) which shows that online learning is effective for overcoming learning that allows lecturers and students to interact in virtual classrooms that can be accessed anywhere and anytime. Online learning can make students learn independently and increase their motivation.

#### **CONCLUSION**

Based on the research that has been done, it can be concluded that:

- 1. Online learning using Virtual Class during the Covid-19 pandemic is quite effective.
- 2. To improve the quality of online learning, the solutions for the concept of online learning by Unila Lecturers are: (1) Reducing online assignments; (2) Adding learning videos; (3) Do not use the group assignment discussion method.
- 3. To improve the quality of online learning, the solutions for the UPT ICT Unila's main tasks and functions are: (1) Repairing the VClass server; (2) Increase the max file size that can be sent; (3) Change the menu/view and make it an apk.

#### REFERENCE

- Handarini, Oktafia Ika. (2020). Pembelajaran Daring sebagai Upaya Study from Home (SFH) selama Pandemi Covid-19. 8(3), 496-503.
- Jamil, Syarifah Hikmah dan Invony Dwi Aprilisanda. (2020). *Pengaruh Pembelajaran Daring terhadap Minat Belajar Mahasiswa pada Masa Pandemik Covid-19*. 3(1), 37-46. doi: https://doi.org/10.33005/baj.v3i1.57.
- Khusniyah, N., & Hakim, L. (2019). *Efektivitas Pembelajaran Berbasis Daring: Sebuah Bukti pada Pembelajaran Bahasa Inggris*. 17(1), 19-33. doi: https://doi.org/10.20414/jtg.v17i1.667.
- Mustakim. (2020). Efektivitas Pembelajaran Daring Menggunakan Media Online selama Masa Pandemi Covid-19 pada Mata Pelajaran Matematika. Al asma: Journal of Islamic Education. 2(1), 1-12. doi: https://doi.org/10.24252/asma.v2i1.13646.
- Oktavian, Riskey & Riantina Fitra Aldya. (2020). *Efektivitas Pembelajaran Terintegrasi di Era Pendidikan 4.0.* 20(2), 129-135. doi: https://doi.org/10.24252/asma.v2i1.13646.
- Pozgaj, Z & Knezevic, B. (2007). E-Learning: Survey on Students' Opinions. Proceeding of the ITI 2007 29th Int. Conf. on Information Technology Interfaces, June 25-28, 2007. Cavtat, Croatia.
- Putri, Desi Widhya dan Mulyono. (2018). *Hubungan Jarak Monitor, Durasi Penggunaan Komputer, Tampilan Layar Monitor, dan Pencahayaan dengan Keluhan Kelelahan Mata*. 7(1), 1-10. doi: 10.20473/ijosh.v7i1.2018.
- Roestijawati, N. (2007). *Hubungan Penggunaan Visual Display Terminat (VDT), Faktor Pekerja dan Lingkungan Kerja dengan Sindrome Dry Eye*. 13(2), 20217. doi: http://isjd.pdii.lipi.go.id/admin/jurnal/1320520521708541159.

  Sadikin, Ali dan Afreni Hamidah. (2020). Pembelajaran Daring di Tengah Wabah Covid-19. BIODIK: Jurnal Ilmiah Pendidikan Biologi. 6(2).214-224. doi: https://doi.org/10.22437/bio.v6i2.9759.
- Sugiyono. 2014. Metode Penelitian Manajemen. Bandung: Alfabeta.
- Wahyono, Poncojari, H. Husamah, dan Anton Setia Budi. (2020). *Guru Profesional di Masa Pandemi Covid-19: Review Implementasi, Tantangan, dan Solusi Pembelajaran Daring*. 1(1), 51-65. doi: https://doi.org/10.22219/jppg.v1i1.12462.

https://covid19.kemkes.go.id./, diakses tanggal 25 Januari 2021. https://sehatnegeriku.kemkes.go.id./, diakses tanggal 25 Januari 2021.