

## **Response To The Need Of Students Of Geological Engineering Of UPN "Veteran" Yogyakarta University, Based On Online Learning Support Academic Facilities Survey During COVID-19 Pandemic**

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### **Abstract**

*COVID-19 pandemic, which is now happening worldwide, has a massive impact on many parts of our daily life. One of the affected aspects is education. The education system during the COVID-19 pandemic should fit the health protocol, which has been recommended by the World Health Organization (WHO) and The Ministry of Health of the Republic of Indonesia. Both students and lecturers are demanded to keep conducting the learning process virtually in their own houses by online learning. However, online learning support facilities used in UPN "Veteran" Yogyakarta University are still lacking and not centralized yet; thus, every department needs to prepare their needs autonomously. Geological Engineering Department surveyed supporting facilities needs as an essential preparation of the online academic system. The survey was conducted through an online form and was filled by 273 respondents who are active students of the Geological Engineering Department, (1) UPN "Veteran" Yogyakarta University. Almost 85% of the respondents expect learning information system which covers attendance list, announcement, and online interactive media, which is mobile-based in order to be easy to access and use. Based on the result of the survey, Geological Engineering Department is planning to produce an Android-based app with an attendance list and social media features inside. The social media feature is able to be used by students and lecturers to interact with one another, especially discussing online learning.*

Keywords: *online class, COVID-19, geological engineering*

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## **I. INTRODUCTION**

COVID-19 pandemic is infecting many people in various countries, including Indonesia, where the pandemic began to enter February 2020, causing every country to suit the strict health protocol such as education. Ministry of Education (Kemdikbud) via Surat Edaran Kemdikbud No.2 2020 about Prevention and Treatment of Covid-19 in Kemdikbud, Surat

Edaran Kemdikbud No.3 2020 about Prevention of Covid-19 in Education Institutions, and Surat Edaran Kemdikbud No.4 2020 about the Educational Rule during Emergency Period of Covid-19, says that all education institutions in Indonesia should temporarily omit face-to-face learning process. In response to the letters, the Rector of UPN "Veteran" Yogyakarta University published a No.29/UN62/PA.05.12/SE/2020 letter about Guidance of Academic Activities for the Odd Semester in 2020/2021, which contains the rule of the learning process during the COVID-19 pandemic that has to be online.

Academic-supporting facilities are one of the supporting factors needed in the learning process in the college. To support online learning during this pandemic, good academic facilities for both lecturers and students are necessary. The research on academic facilities needs for students of geological engineering should be done as an evaluation. Moreover, the result of the study will also be used as a base to produce a system for attendance lists and integrated information in Geological Engineering Department, UPN "Veteran" Yogyakarta University.

## **II. LITERATURE REVIEW**

Satisfying customer needs is every wish producer/service provider. Apart from being a factor essential to the survival of the institution, satisfactorily customer needs can increase excellence in competition. Customers satisfied with the product/service tend to buy back and engage potential customers new to using a service they already feel satisfaction with service performance.

To find out whether a consumer/customer accepts or rejects a product or service, marketers must pay close attention to the views of the primary consumer/customer towards the product or service. Marketers/product or service management parties, mostly educational services, can use the following methods to examine the level of foremost customer satisfaction, namely:

- 1) Complaint and suggestion system. Customer-minded organizations will make it easier for their customers to provide suggestions and complaints, for example: providing suggestions and complaint boxes, comment cards, customer hotlines, hiring customer opinion/complaint collectors, etc. In this way, marketers can more easily solve problems.
- 2) Customer Satisfaction Survey. A customer-oriented organization cannot assume that a complaint and suggestion system can completely describe customer satisfaction and dissatisfaction. One of the reasons is because not all customers will and want to submit complaints. Therefore, service companies need to conduct research surveys every period by distributing questionnaires, either in person or by mail.
- 3) Ghost shopper. Product or service companies employ people as buyers to competing companies to assess the services provided by these competing companies.
- 4) The lost customer analysis. Companies that lose customers try to contact these customers. They are persuaded to reveal the reasons why they quit or move to another company.

Following the formulation of the problem and research objectives, measuring the level of student satisfaction used is a survey method using a questionnaire. Tjiptono emphasized that

the survey method is the method most widely used in measuring customer satisfaction. According to Kotler, customer satisfaction is known as the level of a person's feelings after comparing perceived performance with expectations. Therefore, in this study, the technique of measuring customer satisfaction was carried out directly by asking students questions about the quality of service provided.

### **III. RESEARCH METHODOLOGY**

The method used in this research is qualitative, using a questionnaire spread to all active geological engineering students. The questionnaire contains fifteen questions which were filled by the respondents. The given questions were then spread online using Google Form. The final result obtained from the questionnaire was then used to create a plan of producing a mobile-based attendance app for lecturers and students of the Geological Engineering Department, UPN "Veteran" Yogyakarta University.

### **IV. FINDING AND DISCUSSION**

Online academic facilities need in Geological Engineering Department, UPN "Veteran" Yogyakarta University, can be known through an online questionnaire using Google Forms. The questionnaire consists of fifteen questions. The information that is expected to be obtained from the respondents are (1) the identity of the respondents to make sure they are really active students of the Geological Engineering Department, UPN "Veteran" Yogyakarta University; (2) the address of the respondents during a COVID-19 pandemic; (3) device and internet connection used by the respondents during online learning ; (4) learning type and media used during online learning; (5) the readiness of the respondents and their opinion about how well-prepared Geological Engineering Department in conducting online learning; (6) attendance list and information system of online learning; (7) the expectation of the respondents for the supporting academic facilities.

The researchers have obtained and collected answers to the questionnaire from 273 respondents. The obtained result was then used to know the condition, readiness, as well as expectations of the students for the online learning that will keep being conducted during the COVID-19 pandemic. Below are the obtained results:

#### **Respondents' identity**

The respondents were asked to answer three questions related to their identity to make sure that they actually are active students of the Geological Engineering Department, UPN "Veteran" Yogyakarta University. 35% of the respondents are second-semester students of the Geological Engineering Department, UPN "Veteran" Yogyakarta University, 20% of the respondents are fourth-semester students of Geological Engineering Department, UPN "Veteran" Yogyakarta University, 37% are students sixth-semester students of the Geological Engineering Department, UPN "Veteran" Yogyakarta University, and 8% of them are eighth-semester students of Geological Engineering Department, UPN "Veteran" Yogyakarta University (Figure 1).



Figure 1. Chart informing about in what semester are the respondents in Geological Engineering Department, UPN "Veteran" Yogyakarta University.

Address or where the respondents live during the COVID-19 pandemic

The next question is about where the students live or stay during the pandemic. 58% of the respondents live in the Yogyakarta area, and 32% of them live in their parents' house, 23% in boarding house, and 3% live in their relatives' place. 42% of the respondents live in outside of the Yogyakarta area. 38% of them live in their parents' houses, and 4% of them live in their relatives' houses (Figure 2A, B, C).

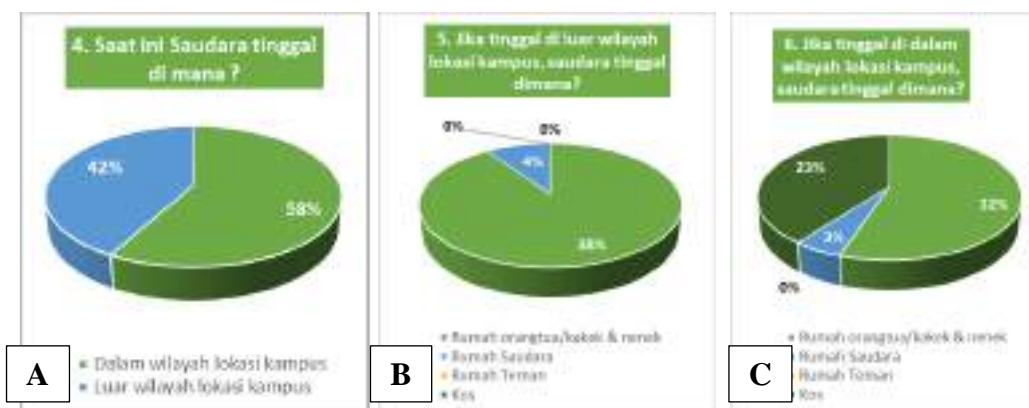


Figure 2A. Chart about respondents' address (inside and outside Yogyakarta area)

Figure 2B. Chart about respondents' addresses outside the Yogyakarta area.

Figure 2C. Chart about respondents' addresses inside the Yogyakarta area.

Devices and internet connection used by the respondents during online learning.

61% of the respondents use a mobile phone as the main device they use to join online learning, 6% use computer desktop, 22% use notebook, and the rest, which is 11% of the students use a tablet (Figure 3A). Besides the devices, the question was also about the internet connection they use during the learning process. 56% of respondents use mobile phone internet provider, 36% use wifi, and 8% of them use tethering from their family (Figure 3B). It then can be concluded that most of the students of the Geological Engineering Department, UPN "Veteran" Yogyakarta University use mobile phones and provider's connection as the main device and connection during the online learning process.

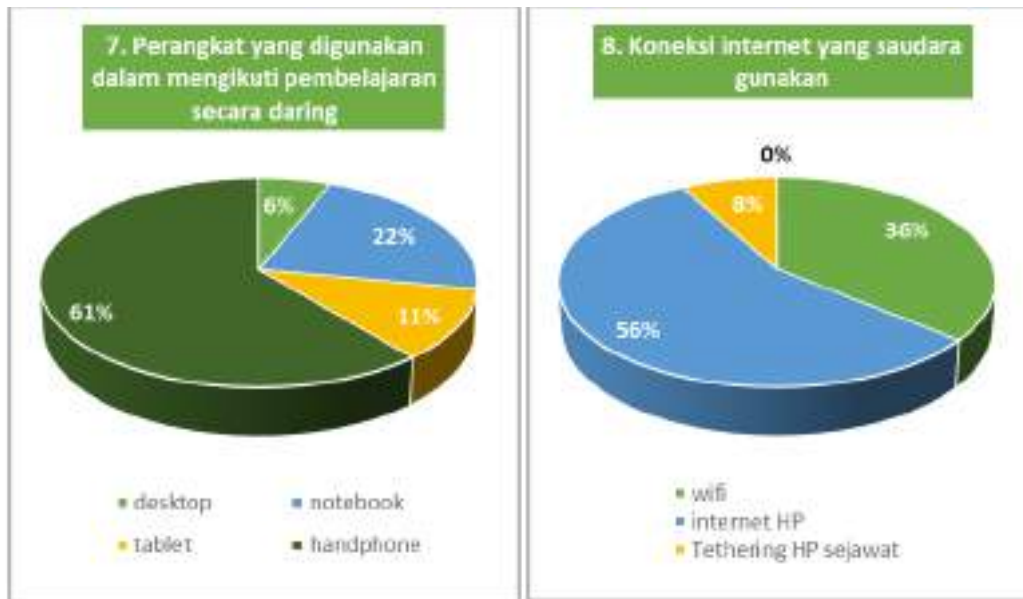


Figure 3A. Chart informing the devices respondents use in joining online learning  
Figure 3B. Chart informing the internet connection respondents use in joining online learning

Model and media of learning the respondents use during the online learning process 50% of the lecturers use meeting conference apps such as Zoom, Google Meet, and Webex for the online learning, 13% of them decide to use social media Whatsapp, and 37% of them use the mixed-media (virtual meeting and social media) (Figure 4A)

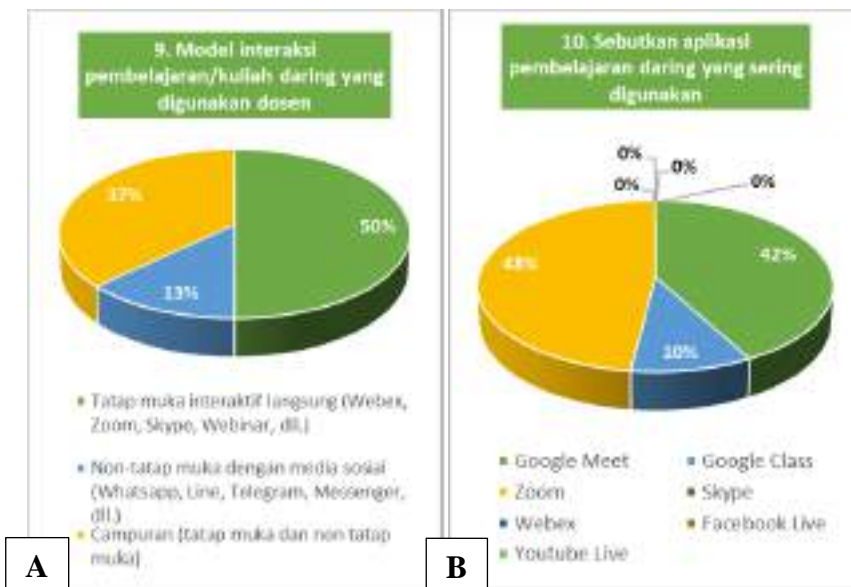


Figure 4A. Chart informing about learning interaction model used by the lecturers  
Figure 4B. Chart about meeting conference app often used in the online learning process

Respondents' readiness and their opinion on the department's readiness in conducting online learning

Related to the respondents' readiness to join an online class, 17% of the respondents state that they are very ready, 46% of the respondents are less ready, and the rest state 'no idea' (figure 5A). From all respondents, only 12% of the respondents state that facilities of the department are complete enough for the online learning, 33% of of the respondents say that the facilities are less complete, 21% state that far from complete, and 34% of of the respondent's state 'no idea' (figure 5B). Based on the survey, it can be concluded that most of the students are less ready for the online class, and so is the geological engineering department, which is stated to be not that ready in conducting the facilities.



Figure 5A. Chart about respondents' readiness in facing the online class

Figure 5B. Chart of students' opinion about the readiness of the facilities of the department

#### Attendance and information system in online learning

A question about the attendance system in the geological engineering department was given. The result shows that 76% of the respondents state that they found no attendance list system during the online learning, 12% do the attendance checking in Whatsapp class group, and 12% fill the attendance list in the meeting conference chat column during the online learning (figure 6A). Besides the attendance system, the students also need effective information about the online meeting during the COVID-19 pandemic. 20% of the students state that they got the information about the class from the student organization of geological engineering department (HMTG), 26% of the students say that they got the information from the WhatsApp group, and 54% of the students got less information related to the online learning (figure 6B).



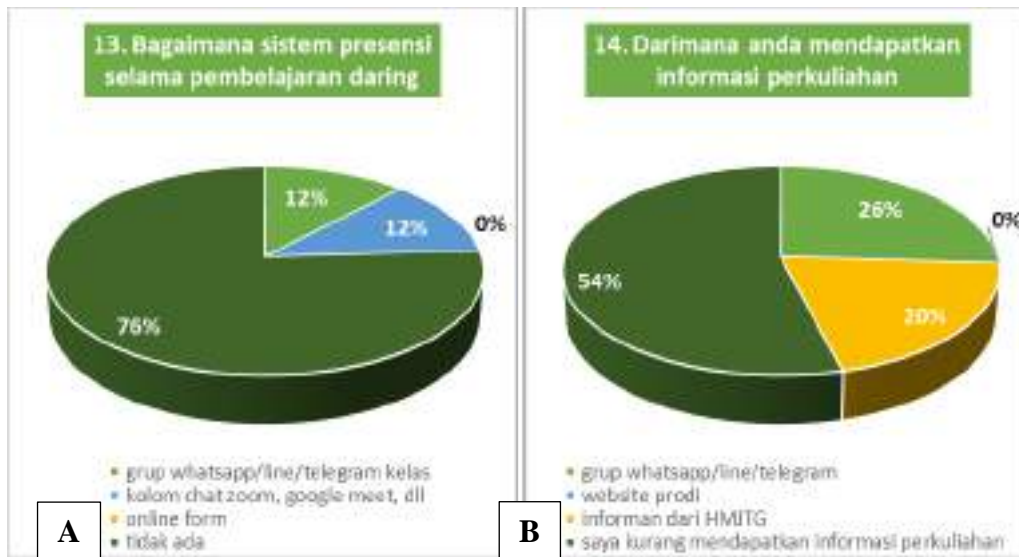


Figure 6A. Chart showing the attendance system done during the online learning

Figure 6B. Chart informing the information source about the online class

Students' expectations for the improvement of academic facilities supporting system. 12% of the students state that they are satisfied enough with the online class facilities existing at the moment while most of them which are 88% state that the department needs an integrated system as the facility of online learning for the students and lecturers (figure 7)



Figure 7. Chart about students expectation on the academic facilities supporting system

1. Based on the response to the spread questionnaire, generally, it can be said that:
2. During the COVID-19 pandemic, most of the students of the Geological Engineering Department, UPN "Veteran" Yogyakarta University, go to their hometown (outside Yogyakarta), although some of them are staying in Yogyakarta.
3. During the COVID-19 pandemic, most of the students rely on mobile phone and provider connection as the main device for online learning. This aspect is related to students' comfort as the mobile phone is believed to be a device that is easy to be used anywhere and anytime.

4. Most of the lecturers of the Geological Engineering Department, UPN "Veteran" Yogyakarta University, uses a meeting conference app (Zoom, Google Meet, Webex) for the online class.
5. Most of the students are less ready to join the online learning system and believe that the online class facility in the department is not ready.
6. During the online learning process, the attendance list system and information system are not well-managed.
7. 88% of the students expect a new integrated system as the supporting facility for the online learning in Geological Engineering Department, UPN "Veteran" Yogyakarta University.

## **V. CONCLUSION AND FURTHER RESEARCH**

Based on the response of the students of the Geological Engineering Department, UPN "Veteran" Yogyakarta University, to the academic facility to support online learning, it can be concluded that the department is not yet ready to conduct an online class system. One of the most important facilities which need to be improved as soon as possible is the attendance list for both students and lecturers. Almost all students expect an integrated attendance list and source system to support the online learning process in Geological Engineering Department, UPN "Veteran" Yogyakarta University.

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