

## **TECHNICAL DIFFICULTIES OF E-LEARNING FOR GEOGRAPHY EDUCATION STUDENTS OF LAMPUNG UNIVERSITY IN GEOGRAPHY PRACTICUM**

Annisa<sup>1</sup>, Irma<sup>2</sup>, Dian<sup>3</sup>

annisanurhamidah50742@gmail.com, irma.nugraheni@fkip.unila.ac.id,  
dianutami@fkip.unila.ac.id

Lampung University, Indonesia

### **ABSTRACT**

This research was carried out with the aim of knowing the technical difficulties of e-learning for Geography Education students at the University of Lampung in geography practicum. The research objects contained in this study were students of the 2019 and 2018 of Geography Education. In this study, half the population of 2019 and 2018 Geography Education students at the University of Lampung was used, consisting of 60 students. Data collection techniques used are observation and questionnaires. Meanwhile, data analysis techniques in this study used descriptive quantitative. The results of the study obtained data indicating that the most technical difficulties that trigger e-learning technical difficulties for students during geography practicums are indicators of hardware technical difficulties of 150% with the description: a) Laptop RAM  $\leq$  4GB problem experienced by 43% or 26 people students because the laptops used during the geography practicum are laptops or tools provided and prepared by students independently, b) The problem of old laptops responding to commands experienced by 62% or 37 students is caused by a large amount of trash or cache which causes the memory to fill up and causes the laptop to become slow in responding to an order, and c) The problem of difficulty digitizing during practicum without a mouse experienced by 45% or 27 students because the digitization process is a complicated process and requires a tool in the form of a mouse.

Keywords: Technical Difficulties, e-learning, students

## INTRODUCTION

Online learning (on the network) or e-learning can have a negative impact on student engagement due to lack of interaction with educators and other learners, technical difficulties, problems in time management and problems related to teaching materials (Ilgaz & Gülbahar, 2015). In each learning activity in the network, demands to be active on each Meeting is a problem that has not been able to be overcome by some Mostly students and lecturers, due to each geographical location and different time Different makes every difficulty and problem different.

*The use of the internet and the use of multimedia technology can be a turning point in changing the delivery of knowledge and become an alternative option in learning in traditional classes (Agustina, 2020).*

Based on the elaboration of various technical difficulties, it can be concluded that technical difficulties are problems that will occur due to factors including technology and include skills with the support of knowledge, understanding and ability to complete tasks related to maintenance and improvement of computer infrastructure, networks, communication (Almaiah et al., 2020).

GIS which is actually a system coverage contains various components which include hardware in the form of computers, software and the necessity for the availability of accurate geographic data along with human resources for the implementation of roles and activities in the process of formulating and analyzing problems that determine the success or failure of GIS (Sumantri, et al., 2019). However, online learning (e-learning) is able to cause various kinds of attritions (friction) which leads to technical difficulties and can become obstacles that result in student involvement during learning and learning activities.

In research on the technical difficulties experienced by geography education students, it will be known what are the difficulties of students during preparing practicum materials independently and carrying out online practicum activities in the geography information system (GIS) course.

the research instrument in the form of a questionnaire has a grid in order to find out a summary related to the questionnaire that will be distributed. The grid will be explained as follows:

**Tabel 6.** Kisi-kisi Instrumen Penelitian

Variabel	Indikator	Sub indikator	No. item	Jumlah Item
Technical difficulties		a. Laptop		
		1) RAM $\leq$ 4GB		
		2) Memory capacity VGA $\leq$ 246MB		
		3) System operation version 32bit	1-2	2

GIS Practicum	1. Technical difficulties Hardware	4) Takes a long time to respond to commands			
		5) There are frequent force closes			
		6) Problems during installation of ArcGis			
		b. Mouse			
		1) Don't have mouse	3	1	
		2) Difficulty using the touchpad			
	2. Technical difficulties Software	3. Technical difficulties procedural	3) Difficulty digitizing without a mouse		
			a. Aplikasi <i>ArcMap</i>		
			1) <i>ArcMap</i> lamban	4	1
			2) <i>ArcMap</i> mengalami <i>error</i>		
			3) <i>Tools ArcMap</i> tidak bisa digunakan		
			b. Aplikasi <i>ArcScene</i>		
1) <i>ArcScene</i> lamban		5	1		
2) <i>ArcScene</i> mengalami <i>error</i>					
3) <i>Tools ArcScene</i> tidak bisa digunakan					
c. Aplikasi <i>ArcGlobe</i>					
1) <i>ArcGlobe</i> lamban		6	1		
2) <i>ArcGlobe</i> mengalami <i>error</i>					
3) <i>Tools ArcGlobe</i> tidak bisa digunakan					
4. Technical difficulties connectivity	3. Technical difficulties procedural	a. Rujukan praktikum modul			
		1) Kesulitan memahami arahan modul			
		2) Mengalami <i>errrr</i> mengikuti arahan modul	7	1	
		3) Kesulitan mencari modul yang mudah dipahami			
		b. Rujukan praktikum arahan teman			
		1) Kesulitan mengikuti arahan teman			
	2) Mengalami <i>errrr</i> mengikuti arahan teman	8	1		
	3) Kesulitan memahami diskusi kelompok				
	c. Rujukan praktikum video youtube				
	1) Kesulitan mengikuti video youtube				
	2) Kesulitan mencari video youtube yang sesuai	9	1		
	3) Kesulitan mempraktekkan arahan video youtube				
4. Technical difficulties connectivity	4. Technical difficulties connectivity	• Sinyal			
		1) jaringan konektivitas kategori rendah			
		2) Jaringan konektivitas rentan gangguan (hujan, listrik mati dan lain-lain)	10-11	2	
		3) Kesulitan mencari dataran tinggi			
		4) Harus menggunakan wi-fi			
		5) Kesulitan mencari wi-fi			
6) jaringan konektivitas sering terputus					
• Kuota		2			
1) Keterbatasan kuota/paket internet					
2) Kesulitan membeli kuota	10-11				
3) Hanya menggunakan jenis kartu sim tertentu					

Sumber: Hasil Pengolahan 2022

## METHODOLOGY

This research was carried out with the aim of knowing the technical difficulties of e-learning for Geography Education students at the University of Lampung in geography practicum. This research will be an explanation related to technical difficulties during carrying out the geography practicum of GIS courses experienced by geography education students. The data collection techniques used are observation and questionnaires. This research will be a case study that helps find the problems experienced by students so that they can be known and found solutions so that these technical difficulties can become problems that can be overcome by the university and the students themselves. The research objects contained in this study were students of the 2019 and 2018 of Geography Education. In this study, half the population of 2019 and 2018 Geography Education students at the University of Lampung was used, consisting of 60 students. Meanwhile, data analysis techniques in this study used descriptive quantitative.

## FINDINGS AND DISCUSSIONS

- Technical Difficulties *Hardware*

Technical difficulties or problems that occur on laptops used by students while carrying out e-learning activities are problems related to Laptop RAM  $\leq$  4GB. The problem of Laptop RAM  $\leq$  4GB was the most dominant choice of answer experienced by 25 students living in rural areas because the laptops used during the geography practicum were laptops or tools provided and prepared by students independently to take part in geography practicums online. Laptops that have laptop RAM  $\leq$  4GB indicate that the laptop is an old laptop that causes or triggers technical difficulties during geography practicum. Laptops that have laptop RAM  $\leq$  4GB indicate that the laptop is an old laptop that causes or triggers technical difficulties during geography practicum.

- Technical difficulties software

The most dominant technical difficulty problem is related to network connectivity which is vulnerable to disturbances (rain, power failure, etc.) for 24 students who live in rural areas, indicating that network connectivity plays a role in the technical difficulties experienced by geography education students during geography practicum. . The problem of limited quotas is a technical difficulty that triggers technical difficulties during student geography practicums. The problem of difficulty listening to explanations due to frequent disconnection of network connectivity experienced by 24 students who live in rural areas who must be forced to use certain types of cards at quite expensive prices for students to try to get a better network is a serious problem because during practicum, one understanding from the lecturer's explanation is an important role that will assist students in carrying out geography practicum.

- Technical difficulties procedural

Problems related to technical difficulties related to module directions were also felt by 23 students who stated that they continued to experience errors even though they were in accordance with the module directions. The problem of technical difficulties experienced by 22 students even though they were in accordance with friends' directions (discussion) is an explanation that discussions between individuals continued to run smoothly even though they were carried out online, but still did not rule out the possibility of technical difficulties occurring during the process.

- Technical difficulties connectivity

The most dominant technical difficulty problem is related to network connectivity which is vulnerable to disturbances (rain, power outages and others) for 24 students who live in rural areas, indicating that network connectivity plays a role in the technical difficulties experienced by geography education students during geography practicum. . The problem of limited quotas is a technical difficulty that triggers technical difficulties during student geography practicums. C. The problem of difficulty listening to explanations due to frequent disconnection of network connectivity experienced by 24 students who live in rural areas who must be forced to use certain types of cards at quite expensive prices for students to try to get a better network is a serious problem because during practicum, one understanding from the lecturer's explanation is an important role that will assist students in carrying out geography practicum.

## CONCLUSION

In the technical difficulties that are experienced and occur in geography education students while carrying out geography practicum e-learning, GIS courses. there are 4 indicators with various variations of difficulty, and will be explained as follows:

1. In terms of hardware technical difficulties: Laptop RAM  $\leq$  4GB, laptops that take a long time to respond to commands, and difficulty doing the digitization process during practicum without a mouse.
2. In terms of software technical difficulties: ArcMap applications, ArcScene applications and ArcGlobe applications which are slow when used .
3. In procedural technical difficulties: Technical difficulties in the form of errors even though they are in accordance with the module directions, technical difficulties even though they are in accordance with a friend's directions, and related to difficulties finding suitable YouTube video directiouse
4. In terms of procedural technical difficulties: Network connectivity that is prone to disturbances (rain, power outages and etc.), quota limitations, and difficulty listening to explanations due to frequent disconnection of network connectivity.

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