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# A Study Accessibility of Deaf Students During The Covid-19 Pandemic

(Case Study of Online and Offline Learning)

Melania Safirista<sup>1,\*</sup> Sofiarti Murtadlo<sup>1</sup> Endang Pudjisartinah<sup>1</sup>

#### **ABSTRACT**

The COVID-19 pandemic has changed various sectors including education One of the vital things is the education sector including Deaf Education. In this qualitative research, the researcher invited some informants to explore various things since the problem that occurs among Deaf students is about access to interpreters. The result of this research revealed there were two inverse answers between two informants from Brawijaya University and two others from Dinamika University and Widya Mandala Surabaya University. The researcher chose multiple universities considering the different campus backgrounds. Two informants from Brawijaya University revealed that offline learning is more comfortable due to access and a supportive atmosphere of inclusion. Meanwhile, two informants from Dinamika University and Widya Mandala Surabaya University preferred online study because of the enjoyable web text access, compared with offline studies where they do not have interpreter access. So, the problem that appears is that access is the right of all people with disabilities. All colleges should conduct comparative studies, review & improve their access for deaf students. With the purpose, the individuals with disabilities will enjoy the learning in college, by means inclusiveness will be implemented well for deaf students.

Keywords: Accessibility online and offline, Case study, Deaf students.

### 1. INTRODUCTION

Covid-19 Pandemic has an impact on various sectors, such as the education sector which has been hardest hit by the COVID-19 [1]. It resulted in chaos in the pattern of education in Indonesia. Where many teachers and students are not ready for online learning, this also has an impact on deaf students at several universities. Recent statistics reveal that 51% of Deaf students are enrolled in colleges but only 18% graduate with a bachelor's degree [2], it is not a matter of the experienced but university's unpreparedness in accepting Deaf students [3]. During this pandemic period, the researcher had a sharing session with two deaf friends who were currently studying at a university. They said that online learning is more comfortable, which is facilitated by web captioners. However, to know more about the experiences of deaf friends in online learning, how they have been studying offline, and the access they have received, the researcher wants to know deeper into how

online learning is for Deaf students during the COVID-19 pandemic run.

# 1.1. Technology-Based Learning Media During a Pandemic

When the Covid-19 pandemic increased, it made various creativity in meetings and learning activities in schools adapted to the pandemic situation, by using online media. [4] in his research, it revealed that since the outbreak of the Covid-19 in Indonesia, many efforts have been made by the government to suppress its spread. One of them is by promoting social distancing movements to minimize physical contact that assume has the potential to spread the Covid-19 from one individual to another. Based on the implementation of physical distancing (often called social distancing) causes changes in behaviour patterns nationally in many countries. Changes in behaviour patterns are not only limited to social aspects but also occur in the world of education, including in the learning process in universities. The demand of implementing social

<sup>&</sup>lt;sup>1</sup> Department of Special Education, Universitas Negeri Surabaya, Surabaya, Indonesia

<sup>\*</sup>Corresponding author. Email: melania.20007@mhs.unesa.ac.id



distancing movements and the existence of work from home (WFH) policy requires lecturers to design lessons that students can follow from their respective homes. Campus policies make lecturers ultimately change their learning method from conventional learning in the classroom to online learning that students can follow from anywhere. This online learning is carried out both synchronously and asynchronously using web services and learning applications. Synchronous learning is done through video conferencing. Through this learning, lecturers and students meet and communicate in real-time using Zoom or Google Meet.

Asynchronous learning is carried out using applications such as Google Classroom, Edmodo, WhatsApp, and Email. Lecturers upload learning content as reading materials, learning videos, or links to materials available on the web to the learning applications used. Students can give feedback or questions through the chat feature provided or using WhatsApp.

#### 2. RESEARCH METHOD

The research method used qualitative studies with a study case, which occurred in the COVID-19 pandemic situation. The informants in the study were two Deaf students from Brawijaya University Malang and two deaf students from Surabaya. The first informant is a 9th student majoring in Bachelor communication science, the first informant was a Deaf student in 9th semester majoring in S1 Communication Science, Brawijaya University And the second informant is 7th semester majoring in Diploma of Visual Communication Engineering Brawijaya University. Then a student from Dinamika University Surabaya as the third informant, he majored in Bachelor of Film and Television Production who had just graduated from college. The fourth informant is a 7th semester student majoring in Nutrition and Food Technology at Widya Mandala Catholic University, Surabaya. The researcher used a direct interview for 1 informant while 3 others used a virtual interview through WhatsApp Video Call for the data collection method. 3 informants were interviewed by a virtual meeting. 1 informant was interviewed directly and observed the online lecture process. After the data have been collected and analyzed to find out and observe more deeply the information data obtained so that researchers know and get results that are under the research objectives that have been designed, the researcher asks the informant for further information

#### 3. RESULTS AND DISCUSSION

The coronavirus outbreak had a negative impact on educational activities worldwide leading to widespread school closure. In response to the COVID-19 pandemic, UNESCO and the governments of UNESCO member countries have called for the importance of ensuring that young students, both students, and the community, receive educational services through distance learning (digital platform learning).

In this study, the researcher conducted interviews through video call, considering the Covid-19 situation that made it impossible to meet and some of the target subjects returned to their original places. The first informant told that while experiencing offline lectures in Brawijaya he felt comfortable because he could get access to help him in lecture activities, besides that there were lecturers who studied Indonesian sign language, if there was no Sign Language Interpreter, the lecturers could also directly explain the material using Sign language. Even if there are lecturers who are not able to do Sign Language, they use clear expressions and oral. Before online learning, the first informant used to do activities with other Deaf friends who were studying in Malang so that they could exchange information. The first informant felt comfortable while studying at his campus. [5] The Deaf community understands that Deaf people are a linguist-minority culturally and culturally. In America, similar to their hearing peers, many Deaf students choose to attend community colleges because of their accessibility and open-door policies [6]. This comfort situation has changed since semester 7 due to the Covid-19 pandemic which forced him to have online learning. It turned out that for the first informant, this online learning made it difficult for him to understand the material because he often had network problems, so when the connection had a problem, the Sign Interpreter's display became jammed. This situation made the first informant stressed and had difficulty doing lecture assignments given by his lecturer because the information captured was incomplete due to the network connection [8]. In England, education during this pandemic also has difficulty communicating because they rely on visuals to communicate. As a result of internet constraints, cues (visuals) become jammed and ultimately difficult to understand, so first informants prefer offline learning.

The second informant is a 5<sup>th</sup> semester student majoring in Informatics Engineering (D3) at Brawijaya University, Malang. The second informant also experienced a transition period, namely from offline lectures to online lectures during the pandemic. The second informant also feels very comfortable when taking offline learning because he can attend the class well because he is studying the same as the first informant's campus which has access to Sign Language Interpreters in almost every lecture. Even though there is no Sign Language Interpreter, there is a lecturer who conveys it clearly and if the second informant wants to ask personally, the lecturer has the willingness to prepare time for discussion or receive questions. Meanwhile, if the second informant's online lecture is



constrained by a difficult internet connection and sometimes the Sign Interpreter gets stuck and looks small on the Zoom display. [8] reveals that people who are not acquainted with sign language usually often think of sign language as a primitive language that has no conventions or structure but a language that relies on visual 'pantomime' to communicate basic meaning. For language users for the deaf, sign language is a 'lifeline' that facilitates access to information, but these users are often influenced by the stigma once associated with sign language. In Nick's research, it was stated that sign language facilitates access to information, this complements what has been conveyed by the two informants above that sign language access has an efficient contribution to lecture activities.

Furthermore, the third informant is a student majoring in D4 Film and Television Production at the Dinamika University Surabaya who just graduated in 2021, so he had experienced a transition period from offline lectures to online lectures. When he first entered college in 2017, he had time to teach his friends alphabetic signs (A to Z), while studying offline, the third informant had difficulties because there was no access to a Sign Language Interpreter, the lecturer taught with unclear articulation, but was grateful that during college he was assisted by his friends. Some friends re-explain the material from the lecturer, and some write what the lecturer explains. Lecturers at Dinamika University are pleased when the third informant wants to ask about the material that has been taught. He has also experienced unpleasant things due to ridicule from his friends because of his deafness. When he entered online learning he felt more comfortable, because he could be more relaxed and could pay attention to the web captioner as access.

The fourth informant studied at Widya Mandala University Surabaya majoring in Food Technology and nutrition, now he is in the fifth semester. During offline learning, the fourth informant feels she only gets 1 percent of knowledge, because she is not accessible as a deaf student, such as the interpreter. Sign Language, onscreen text, not to mention if the lecturer speaks with unclear articulation. During offline learning, the fourth informant was assisted by a friend to write what the lecturer said orally. Besides that, the fourth informant's friend lent a notebook, but sometimes she also felt reluctant if she borrowed too often or asked his friends. [8] The convention of the United Nations (UN) on the Rights of Persons with Disabilities which was ratified by the Indonesian government in November 2011 is very important because it opens the door to full inclusion so that their rights can be fulfilled. The convention mentions linguistic rights several times, the first in the definition of 'language'. Article 2 ('Definitions') states that the definition of 'language' includes sign language along with spoken language, and both languages have the same status. Just as Indonesian and Javanese are languages that can express infinitely, in other words, Sign Language is a language that can express infinitely too. It may conclude this situation should not be left, even though there is only one deaf student, the campus cannot simply "turn a blind eye", they must provide access to deaf students moreover UN supported the rights of people with disabilities.

The fourth informant experienced online lectures since entering the middle of the third semester, the fourth informant experienced online learning, since the beginning she tried to understand online learning and used web captioner access so that the fourth informant could be helped in understanding the material presented by her lecturer. According to the fourth informant, online learning was tiring due to many assignments given, but she was able to get access with the media web captioner. The fourth informant also felt that doing assignments was easier because she could access various journals. The fourth informant also revealed the lack of access that makes deaf people reluctant to continue their studies up to university, especially for deaf children who experience language deprivation. For deaf people who use sign language, there is a further barrier when information is not available in sign language, and this is the case in most parts of the world. However, Article 9 ('Accessibility') requires states parties to ensure access on an equal basis, for example by providing and funding professional translators. States parties are also required to recognize and promote the use of sign languages (Article 21, 'Freedom of expression and opinion') and the cultural and linguistic identity of deaf people are also entitled to recognize and support (Article 30, 'Participation in cultural life, recreation, leisure and Sports'). In addition, the Convention declares that deaf children have the right to receive education through sign language, which means that teachers and other education practitioners must be proficient in sign language (Article 24, 'Education').

[1] Research activities have a negative effect as school closures and lockdowns limit the ability of researchers to conduct research especially in situations where face-to-face interaction with students and teachers is required or access to school facilities or research laboratories is denied. School-driven innovation and research are also influential during school closures.

#### 4. CONCLUSION

There are negative and positive things both offline and online learning. For Deaf students themselves, offline learning is comfortable and can interact with other friends, but if the campus does not have access for Deaf students, it will make learning uncomfortable. So that two deaf students chose online learning because they felt more facilitated and accessed by using a web captioner. In contrast, two students from Brawijaya



University feel satisfied with offline learning because the campus is very accessible to a Sign Language Interpreter, which makes them comfortable to study. However, the campus also provides Sign Language Interpreters during online learning, but the informant feels uncomfortable due to the small visual.

So, from these two things it is clear that the problem is neither online nor offline learning, but the access obtained from deaf students, and in this case, during the pandemic, two deaf students benefited because they could use a web captioner to attend the class. But the answers were found to be different for the other two informants because offline with a Sign Interpreter gave more satisfactory access. But once their online learning has a sign interpreter, they just aren't used to the small visual.

So, the main problem of online learning during the pandemic for Deaf students is the availability of access to Sign Language Interpreters both online and offline, it helps students in learning activities. Then it is good if every campus starts to study accessibility in its university for Deaf students. Thus, if the availability of access to Sign Language Interpreters on both online and offline learning is provided, the deaf students will feel more comfortable during their study. It makes online learning not become the first option to maximize the students' capability to understand the subject. It will be better if either online or offline learning provides access to Sign Language Interpreters.

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### **AUTHORS' CONTRIBUTIONS**

All authors conceived and designed this study. All authors contributed to the process of revising the manuscript, and at the end all authors have approved the final version of this manuscript.

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