

A Photovoice Study Exploring Deaf Students Experiences during the COVID-19 Pandemic

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ABSTRACT

The Indonesia government, through the Large-Scale Social Restrictions (PSBB) policy, urges distance learning with no exception distance learning for all citizens, including deaf students. Students with disabilities may have been harder to adapt to distance learning. To explore these potential challenges, this study intended to reveal the experience of the deaf student during the study from home using photovoice. The participants of this study were eight deaf students (4 males and four females) from 10,11 and 12th-grade Special schools in Surakarta. The study revealed three primary findings. Firstly, deaf students felt it more convenient to study with the teacher than with their parents. Secondly, they expressed their sadness and tedium during distance learning because of no meeting with friends and their teachers. Thirdly, the interviewed students are dread with the Covid-19. On the other hand, they have difficulties enhancing their communication skills and competencies. As a preliminary study, this study's result would benefit future research. The stakeholder or the researcher can develop meaningful and joyful learning to help deaf students adapt the distance learning.

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1. INTRODUCTION

Preventing the spread of Covid-19 made all citizens should be aware of the pandemic with social distancing. In Indonesia, the Covid-19 pandemic spread and affected many sectors of youth's life, including education. The change implemented in many learning institutions was the shift from face-to-face learning to online learning, which many scholars approved as the proper response to the COVID-19 pandemic situation (Adedoyin & Soykan, 2020; Alawajee, 2021; Mojibur Rohman, 2020) Indonesia government urged distance learning policy to adapt to this situation through using digital media in

learning (Bunga, Adu, et al., 2021). The Indonesian government has shown the technology to engage teachers to teach innovative lessons while closing the performance gap between rural and urban schools and between poorer and richer provinces. In the non-formal sector, Indonesian start-ups such as Harukaedu, Ruangguru, Quipper School, Kelase, and Zenius take education technology opportunities and focus on providing online classes. These digital initiatives have generated plenty of positivity, and underlying infrastructural problems may limit their potential (Retnawati, 2019). Meanwhile, there is no innovative lessons platform to enrich potential for students with disabilities in special education.

Since March 2020, the Indonesian government, through Pembatasan Sosial Berskala Besar policy, urges distance learning with no exception distance learning for the deaf. The transition from face-to-face learning to home-based learning can potentially decrease Indonesian children's access to quality education (Bunga, Wijaya, et al., 2021). Distance learning may have been harder to adapt for students with disabilities. According to the National Deaf Center survey in 2020, NDC explained that deaf students had difficulty with online learning (Alshawabkeh et al., 2021). Moreno's study reported that deaf students did not understand an interpreter was on the screen during online distance learning because the students depend on sign language for learning. Students always depend on a sign language interpreter to understand coursework, so deaf students had communication problems through online distance learning (Moreno et al., 2012). This study is concerned with implementing distance learning in a particular school. Teachers and deaf students need access to a device, skill operating, and good internet connection to hold distance learning with technology.

According to Heward et al., many deaf children have a certain residual hearing level. Technology can be used to enrich their skill to make the remaining hearing remnants productive (Heward et al., 2017). Azevedo explained that multimedia and hypermedia provide benefits for learning, and research shows that technology can help develop students' independent learning (Schunk, 2012). As Yoon & Kim put that, online learning in Korea indicated a potential relationship when material learning provides captions and sign language in online video clips content (Yoon & Kim, 2011). Meanwhile, McKeown & McKeown mentioned three obstacles deaf students face during online learning situations related to learning management system (LMS) obstacles, course content, materials obstacles, and communication obstacles (McKeown & McKeown, 2019). This study aimed to investigate deaf students' experiences during distance learning with photovoice. Involving persons with physical disabilities in photovoice is essential, considering that stereotype from society toward people within this population is widespread (Read et al., 2015). Photovoice was empowering participants by voicing their salient concerns in their community and could be used to address community concerns and priorities to facilitate change (Dassah et al., 2017; Hergenrather et al., 2009)

Issues about deaf education and family background play a role as an essential factor that affects the academic success of deaf individuals are sufficiently proven. That is supported by the O'Connell study that revealed deaf students are more successful academically have deaf parents (Wooten, 2014). Research by Donnellan & Mathews mentioned that there are substantial independent living concerns for many d/Deaf and hard of hearing (DHH) young people (Donnellan & Mathews, 2021). Self-Regulated Learning (SRL) or self-independent Learning refers to the self-directive process by which learners transform their mental abilities into academic skills. Learning is viewed as an activity that students do for themselves proactively rather than as a covert event that happens to them in reaction to teaching (Zimmerman, 2010). This study intended to reveal the experience of the deaf student during the study from home using photovoice with the following research questions how the perceptions of deaf students before and during a covid-19 pandemic were assessed under Self-Independent Learning form Zimmerman.

2. METHODS

This study investigated how deaf students learn phenomena using photovoice. Wang and Burris used the term "photovoice," combining the word "photo" with the initials "V-O-I-C-E" as the acronyms for "Voicing Our Individual and Collective Experience" (Wang & Burris, 1997). The photovoice method developed in 1997 by Wang and Burris has a framework that embodies participatory principles and the

potential to offer a practical qualitative evaluation of persons with disabilities (Shumba & Moodley, 2018a). Brinton Lykes proved that photovoice is well-suited for deaf informants who rely on visual expression and often have limited access to the spoken/written language. The photovoice focuses on visual data that illustrates visual outcomes used as prompts for narratives when participants are asked to “tell the story” of their photos (Lykes et al., 2001).

Furthermore, photovoice allowed access to the emic perspectives of deaf youth in a way that aligned with their ‘ visual learning style (Anne, 2013). The framework photovoice used SHOWED to investigate the picture that should be answered by the participants while analyzing the photos (Kingery et al., 2016). There is a framework of showed displayed below:

S - What do you **SEE** here?
H - What is **HAPPENING** here?
O - How does this relate to **OUR** lives?
We - **WHY** does this problem or strength **EXIST**?
D- What can we **DO** about it?

Participants who took part in this study were disposed to take online surveys through G-Form and in-depth interviews through Whatsapp due to the social distancing policy in school and the deaf condition of participants. Before the deaf students expressed their feeling and perception via an online survey with instruction in the G-Form, the authors gave examples to deaf students on how they express their feeling and perception in G-Form. Then, the authors ask participants to take the pictures using their phone cameras or illustrated with other figures representing their feelings and perceptions. It is easier to express visual expression in text and images than through direct interviews. The authors ask through Google Form some questions about 1) how they practice studying from home. 2) how do they feel about learning before and during Covid-19 by attaching pictures to illustrate their feeling. It resulted in participants expressing their feelings and describing their experiences during the study from home. Furthermore, the authors contact the participants by WhatsApp to gain in-depth interviews with SHOWED framework and write the data narratively. Jurkowski proved that one-on-one interviews with persons with disabilities had impacted confidentiality. It allowed them to express themselves forthright without influence and prevented participants' perspectives from being shaped by others (Jurkowski, 2008; Shumba & Moodley, 2018b). Jorgenson and Sullivan (2010) maintain that showing photovoice improves the ability of children to deliver their perspectives to the adult researcher (Jorgenson & Sullivan, 2010). Ultimately, a person with disabilities, especially deaf adolescents, is facilitated to sharing of their more profound thoughts with the result being richer interview data (Newman, 2010; Shumba & Moodley, 2018b)

The participants consist of 4 males and 4 females students from 10,11 and 12 Special School in Surakarta. All of the participants are deaf with profound hearing loss. Children with severe to profound hearing loss often report feeling isolated, without friends, and unhappy in school. These social problems appear to be more frequent in children with mild or moderate hearing loss than those with severe to profound losses (Heward et al., 2017). They were selected based on the informants' willingness to share stories related to the learning process during the pandemic. The diversity of information from informants was also obtained from how long the informants go to school and the differences between school and gender. The following is an explanation of the participant.

Table 1. Data of the Participants

No.	Initial	Gender	Class
1.	AAP	F	10
2.	FMG	M	10
3.	AOS	F	10
4.	MYS	F	11
5.	YFK	M	11
6.	ISH	M	12
7.	TP	F	12
8.	TOP	M	12

3. FINDINGS AND DISCUSSION

The findings of this research show differences in learning before and during the COVID-19 pandemic. 16 figures from eight students illustrated experiences studying from home during the Covid-19 pandemic. The results are below:

Participant 1- APP



Fig. 1. APP from 10th grade.



Fig. 2. APP from 10th grade.

S - What do you SEE here?

APP explains that the pandemic changes their learning activity and their interaction with her friends.

H - What is HAPPENING here?

Before the Covid-19 pandemic, she went to school from learning activity 8 AM until 1 PM. She learns by herself from 8 AM until 12 PM during the study from home.

O - How does this relate to OUR lives?

She illustrated figure 1 to express how enjoyable her learning was before Covid-19 because she could meet with her friend, do extracurricular activities, and get experiences in school (e.g., time management, allowance, trend of mode). On the other side, figure 2 express her scared about being alone in her home by using masks like a "Maskman" all day long

We - WHY does this problem or strength EXIST?

APP can self-learn, although she has many difficulties understanding the learning module from school.

D- What can we DO about it?

APP hopes the teacher, her friends, and her family have not been infected with Covid-19 so she may meet her teacher and friends again.

Participant 2- FMG



Figure 3: FMG from 10th grade

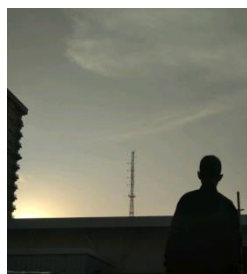


Figure 4: FMG from 10th grade

S - What do you SEE here?

FMG with his friend before the Covid-19 pandemic.

H - What is HAPPENING here?

FMG usually studies at school from 7.30 AM until 1.00 PM with their teacher and friends; during pandemics, he studies for only 150 minutes from 7.30 AM until 10.00 AM in his house without anyone. During the pandemic, his time to study was shorter than studying at school. Nevertheless, he states a study from home is tedious and tiring.

O - How does this relate to OUR lives?

FMG sent the image that represents her feeling. Figure 3 illustrates the condition before the pandemic, and figure 4 illustrates the condition during a pandemic. Before the pandemic, he was pleased to meet his friend, but he felt so lonely, lazy, and sad during the pandemic because no one accompanied him.

We - WHY does this problem or strength EXIST?

Studying without a teacher made FGM difficult.

D- What can we DO about it?

FGM wants to go school to school.

Participant 3- AOS

Figure 5: AOS from 10th grade



Figure 6: AOS from 10th grade

S - What do you SEE here?

AOS portrays the situation before the Covid-19 pandemic. She and her family went to the beach, and she could go to school.

H - What is HAPPENING here?

AOS usually studies at school from 8.00 AM until 1.00 PM; during pandemics, she studies from 8.00 AM until 2.00 PM. AOS said that before Covid-19, she could study freely and assemble with family and friends. During the covid-19 pandemic, she had difficulty studying because of no teacher in learning, and her home often had no electricity and no signal.

O - How does this relate to OUR lives?

Flood as disaster illustrated Covid-19.

We - WHY does this problem or strength EXIST?

AOS enriches her skill in using technology.

D- What can we DO about it?

After Covid-19, AOS wants to learn about cooking, makeup, sewing, and computers in school so that later she can be an independent girl.

Participant 4- MYS

Figure 7: MYS from 11th grade

Figure 8: MYS from 11th grade

S - What do you SEE here?

The picture was taken in 2019 when MYS and her friends were in 10th grade. MYS sent the picture to illustrate how she was sick because of the Covid-19 condition that made MYS and her friends have to social distance, a study from home, and get the task every week.

H - What is HAPPENING here?

She studied from 07.00 until 01.00 PM; during the pandemic, she studied from 08.00 AM until 11.00 PM.

O - How does this relate to OUR lives?

She was pleased when studying at school. The teacher delivered the materials very easy to understand; during the pandemic, it was not easy to understand the material, so she often needed help from her parents. It is different when at school, there was a teacher who made it easier for students to ask questions than during a pandemic. The covid-19 Pandemic made her remember the disaster in her hometown. The disaster made her unable to go to school.

We - WHY does this problem or strength EXIST?

MYS had to ask her parents to accompany her to study at home because she did not understand learning materials without a caregiver.

D- What can we DO about it?

MYS wants to go back to school.

Participant 5- YFK



Figure 9: YFK from 11th grade

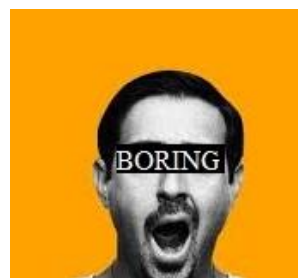


Figure 10: YFK from 11th grade

S - What do you SEE here?

YFK reflects on the situation before the pandemic, learning held face-to-face while learning from home online during the pandemic.

H - What is HAPPENING here?

YFK usually studies at school from 07.30 AM - 02.00 PM. During pandemic Covid-19, he studied at home with her parents or grandpa from 12.00 PM- to 02.00 PM after his parents worked. He was very bored with the situation of the Covid-19 pandemic. He wants to meet his friends and study with his teacher. Time to study longer than studying from home, but the school situation made YFK happier.

O - How does this relate to OUR lives?

Covid-19 produces social distancing that makes YFK unable to interact with others.

We - WHY does this problem or strength EXIST?

YFK did not understand learning materials without a caregiver. During the Covid-19 pandemic, he depended on his parents and grandfather to accompany study from home.

D- What can we DO about it?

YFK wants to be an interactive person in school.

Participant 6- ISH

Figure 11: ISH from 12nd grade



Figure 12: ISH from 12nd grade

S - What do you SEE here?

ISH was very happy to interact with his friends and teacher.

H - What is HAPPENING here?

ISH and friends wore uniforms to school and went to a museum with their teacher to study how to visit tourist attractions and practice the ability to describe places in the narrative.

O - How does this relate to OUR lives?

Covid-19 changes the situation of learning from joyful to scary. The learning has two-way communication in class, which changes to be an annoying condition because ISH could read the module and do the task.

We - WHY does this problem or strength EXIST?

During Covid-19, ISH is very sad and has no motivation to learn. He studied if the teacher gave a task only.

D- What can we DO about it?

ISH does want to be scary with viruses, but this pandemic is mysterious.

Participant 7- TP

Figure 13: TP from 12nd grade



Figure 14: TP from 12nd grade

S - What do you SEE here?

TP portrays a cheerful pose with his friend. They were in 12nd grade and would graduate from SMALB soon.

H - What is HAPPENING here?

TP reflects on her experience with someone crying and depicts how Covid-19 suddenly converted studying from school to studying from home. TP.

O - How does this relate to OUR lives?

TP was very sad and restless with this condition.

We - WHY does this problem or strength EXIST?

The covid-19 pandemic affected many sectors without exception, such as education, interaction, many work from home, and the economy.

D- What can we DO about it?

TP wants to distance learning to evoke interactive social interaction with her friends.

Participant 8- TOP



Figure 15: TOP from 12nd grade



Figure 16: TOP from 12nd grade

S - What do you SEE here?

TOP portrays situations in the classroom where the teacher teaches the student.

H - What is HAPPENING here?

TOP reflects his experience, as illustrated in Figures 15 and figures 16. Figure 15 depicts that studying from school is more convenient than studying from home because studying from home requires a lot of internet quota.

O - How does this relate to OUR lives?

TOP is not ready with distance learning using technology, and he did not have any stuff to take part in distance learning, such as he did not have a smartphone, a limited internet quota, and a signal.

We - WHY does this problem or strength EXIST?

Network conditions in his area are not good enough. He could not ask the teacher many questions directly. The communication did not occur effectively through online learning.

D- What can we DO about it?

TOP wants to learn with his teacher because he does not need an internet quota.

The author interviewed to elaborate on why students took the pictures and what that means to them. Based on the in-depth interview given to the students, the students proved that distance learning was challenging to imply. Eight participants stated that distance learning changes learning activity and interaction with the learning environment. Covid-19 revealed that many students need a caregiver to adapt to distance learning, but few can independently learn. Many students had difficulties understanding the learning module, and they needed an internet connection, electricity, and some devices to follow distance learning. This is relevant to McKeown & McKeown study that showed three obstacles exist at online learning: learning management system (LMS) barriers, course content and materials barriers, and communication barriers. What obstacles have nothing related to their condition, which cannot hear (McKeown & McKeown, 2019).

Furthermore, participant *TOP* portrays the connection internet as extravagant that argument support. Fishbane and Tomer's study that revealed the Covid-19 pandemic illustrated the level of poverty increases in the community affected the rate of internet accessibilities; hence students with no or low socio-economic power to afford broadband or internet connection are most vulnerable to fall behind or encounter additional challenges to meet up with others in online learning (Fishbane & Tomer, 2020).

The table below contains the time to study and with whom participants study from home.

Table 2. Time and Self-Independent Learning

No	Initial	Gender	Class	Time Study during Covid-19	Learning with...
1	AAP	F	10	8.00 AM-12.00 AM	Learning without others
2	FMG	M	10	7.30 AM-10.00 AM	Family
3	AOS	F	10	08.00 AM- 2.00 PM	Learning without others
4	MYS	F	11	08.00 AM- 11. AM	Mother
5	YFK	M	11	12.00 PM- 2.00 PM	Grandfather and parents
6	ISH	M	12	08.00 AM- 10.00 PM	Learning without others
7.	TP	F	12	8.00 AM- 11.00 AM	Mothers
8.	TOP	M	12	10.00 AM- 01.00 PM	Learning without others

According to table 2, the time spent studying during Covid-19 was shorter than studying at school. However, all of the students prefer to study from school because the communication between teacher and student could not occur effectively, interaction in class was very joyful could not create in a study from home, a student could not able enrich their skills through extracurricular or non-formal activities through life long skill in school such as wearing a uniform and visiting the museum. Many participants spend 3-6 hours a day. 4 of the participants study with family members, and 4 participants study without caregivers or parents. Learning during Covid-19 made the students have self-regulated learning. According to Mou's study, Covid-19 promotes the potential trend of self-monitoring and self-evaluation through building up confidence in online learning and self-regulated learning (Mou, 2021).

This article outlined the experiences of deaf students during distance learning. Many voices represented their perspectives about the school, learning, interaction, obstacles, and emotion. Considering deaf student behavior and their family adaptability amid distance learning in a covid-19 pandemic, teachers and stakeholder schools need practical design learning to deaf students and extracurriculars as an additional student resource to enrich their potential and skill. Unfortunately, there are no learning platforms such as Harukaedu, Ruangguru, Quipper School, Kelase, or Zenius for special education. With learning technology, deaf students can interact with devices or computers through Assistive Technologies (ATs) to enrich their potential and skill in the face of the revolution of the 4.0 industry. Zimmerman reported that self-regulation or self-independent learning is essential because the significant function of education is the development of lifelong learning skills. After graduation from high school or college, young adults must learn many essential skills informally.

Developing a curriculum based on need analysis using learning methods, design instruction, and self-regulated learning for lifelong learning skills is more suitable to help students enrich their potential. Using self-regulated learning helps students whose family members can do any activity without burdening them, and on the other side, the students can manage themselves. YFK states he constantly studies with his parents or grandfather after they work. It is an example that students have not been taking responsibility for themselves. Students depend on others. That situation is not a part of the function of education.

4. CONCLUSION

As the result of the research, the authors can conclude that deaf students more conveniently study with the teacher than their parents. Second, deaf students express their sadness and tedium during distance learning because of no meeting with friends and their teachers. Three of the interviewed students are dread with the Covid-19. On the other hand, they have difficulties enhancing their communication skills and their competencies, but on the other side, deaf students are more independent during distance learning because they use self-regulated learning unconsciously. As a preliminary study, this study's result would benefit future research. The stakeholder or the researcher can develop meaningful and joyful learning to help deaf students adapt distance learning.

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