

## **Impact of the Covid-19 Pandemic on the Elementary School Student's Learning Media: A Relationship Between Facilities and Teacher's Perception**

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### **ABSTRACT**

This study aimed to examine the relationship between facilities and instructors' perceptions of their ability to develop instructional media during a pandemic. This study employed a quantitative approach through the use of a survey. The sample size for this study was 154 elementary school teachers drawn through a purposive sampling technique from Pelalawan and Rengat districts. The data were gathered via a survey administered over WhatsApp and analyzed descriptively and inferentially using SPSS version 26. The findings indicated that all basic support facilities for online learning were met 100 % of the time, interactive learning media facilities were met 48.7 % of the time, and assistive devices for students were met 58.4 %.

Additionally, 60.4 % of teachers frequently create learning media on their own, 45.5 % generate media independently, and 42.9 % frequently use online learning media. The Pearson Product Moment Correlation Coefficient calculated between facilities and teachers' abilities indicated a significant value of  $0.000 < 0.05$ . As a result, it is possible to conclude a positive and significant association between facilities and the teacher's opinion of their ability to produce instructional media.

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## 1. INTRODUCTION

The covid-19 pandemic affects most people's activity in many sectors, such as education. Because of this virus, all educational institutions, from elementary to post-secondary levels, require the learning to be conducted from home (Lubis & Dasopang, 2021) (P. Ayu Suci, L., 2020). In supporting the learning from home, many applications are available for free, such as Google Classroom, Google Meet, Zoom, WhatsApp group, YouTube, etc., to support the learning needs" (Widodo & Nursaptini, 2020) (Haqien & Rahman, 2020). These applications can be used as well and possible to keep the education running even though the learning cannot be conducted offline. Online learning needs cooperation between teachers and parents, whereby parents shall provide the facilities, such as Android gadgets and Internet quota, to maximize the learning. Parents and teachers are also responsible for providing the same learning quality as offline learning, such as providing learning media to the students to make all expected aspects realized (Ayuni et al., 2020).

Providing students with attractive learning facilities and learning media will positively affect learning. Dewi (2021) revealed that learning facilities significantly and positively affect online learning and student achievement. If learning facilities are satisfied, online learning activities can be conducted effectively and improve the students' achievements.

Along with the importance of learning facilities, learning media is also vital to support the online learning process. Wahyuningtyas & Sulasmono (2020) stated that providing the students with learning media will affect the students' learning outcomes. Besides, by using media, the students are helped to understand learning materials. Therefore, the teachers shall be able to develop their skills in producing attractive learning media for supporting both offline and online learning (Mustafa et al., 2019).

To understand the elaboration above, online learning implementation needs to be controlled. Pujiasih (2020) stated that online learning activities should be conducted and controlled well since the students are the next generations who will struggle for Indonesia in the future. Hence, the researchers intended to review the facilities that supported the online learning process and the extent of the teachers' ability to produce learning media to support the online learning process. Further, the researchers would review the relationship between facilities and teachers' ability to produce learning media.

Research on the relationship between facilities and teacher skills in producing learning media has been widely carried out. In one of the studies conducted by M. Abdullah (2018), research shows an influence between facilities and teacher motivation on learning effectiveness. Furthermore, Rahayuningtyas & Yulianto's (2016) research show a positive influence between principal leadership, foundation management, school facilities, and work motivation on teacher performance simultaneously or partially. As for the renewal of the research that researchers will carry out, researchers review facilities from 3 aspects: basic support facilities, interactive learning media facilities, and assistive devices for students. Furthermore, the researcher also reviewed the extent of the teacher's skills in producing learning media. Furthermore, the researchers also looked at the relationship between facilities and teacher perceptions in producing learning media. The study results can be used as a reference for schools, governments, and further researchers to determine the importance of learning facilities in supporting teacher skills in producing learning media.

## 2. METHODS

This study used a survey method using a quantitative approach (Creswell, J., 2012). This study was conducted in 2021 with a total sample of 154 elementary school students in Pelalawan and Rengat using a purposive sampling technique (Sugiyono, 2015). The survey was conducted to identify the teachers' ability to produce learning media and review the facilities used during online learning activities. The survey provided some questions through Google Form distributed via WhatsApp. The data were collected from the survey results and analyzed descriptively and inferentially using the SPSS version 26. The data analysis was the foundation for obtaining recommendations by conducting coaching/training by the stakeholders and educational institutions.

### 3. FINDINGS AND DISCUSSION

#### *The Descriptive Analysis based on Teachers' Supporting Media in Conducting Online Learning*

In surveying the facilities that support the teachers in online learning, the researchers observed some aspects, namely basic supporting facilities, interactive learning media, and assistive devices for students. Tables 9 through 11 present the description of each of those aspects.

**Table 1. Basic Supporting Facilities**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	154	100.0	100.0	100.0

Table 1 generally informs that the basic supporting facilities for online learning have been met (100%). Basic facilities that have been provided are electricity, Internet, textbooks, and students' worksheets. Then, the data related to interactive learning media is presented in table 10.

**Table 2. Interactive Learning Media**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	79	51.3	51.3	51.3
	Yes	75	48.7	48.7	100.0
	Total	154	100.0	100.0	

Based on Table 2, it can be known that interactive learning media (48.7%) has been provided. Those facilities include *WA group*, *Google Classroom*, and *Google Meet*. Those three facilities are familiar facilities among teachers and students. Besides having basic facilities and interactive media, other facilities that need to be noted in online learning is assistive devices for students, as shown in Table 11.

**Table 3. Assistive Devices for Students**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	64	41.6	41.6	41.6
	Yes	90	58.4	58.4	100.0
	Total	154	100.0	100.0	

Based on Table 3, it can be seen that the majority of the students have assistive devices for online learning (58.4%). Those devices are *Smartphones*, *headsets*, and *laptops*. Those three facilities are must-have items and shall be attempted to support online learning.

Table 1 through 3 provides information about facilities that support the teachers to conduct online for elementary school teachers in Pelalawan and Rengat. The aspect of basic supporting facilities obtains the information that 100% of supporting facilities have been fulfilled, such as electricity, Internet, textbooks, and students' worksheets. 48.7% of interactive learning media has been fulfilled, namely *WA group*, *Google Classroom*, and *Goole Meet*, and the majority of the students (58.4%) have had assistive devices for online learning, such as *Smartphones* *headsets* and *laptops*. The result is reinforced by Nadif Ulfia (2020) that facilities owned by the teachers and students in online learning are categorized as eligible. Thus, since the learning facilities have been met, online learning can be conducted effectively. It is in line with Bella et al. (2021), stating that facilities are the most crucial factor in online learning implementation; the necessary facilities that support online learning are the availability of either Android phones or laptops because if the students do not have one of those facilities, the learning process will be difficult to be conducted. Besides the facilities like Android

phones and laptops, another factor supporting online learning is the learning application. It is in line with a study conducted by Putra et al. (2020) that the applications that help online learning implementation are *Google meet* and *Google Classroom*. These applications are helpful for the students since they are internet quota-saving applications compared to other applications.

Furthermore, Marcica & Nurmatin (2020) also stated that an application that can support online learning is Google form. With Google form, the teachers can assess or evaluate the students' tasks remotely, and the students do not need to turn in their tasks directly to their school. Based on the elaboration above, it can be known that the availability of learning facilities strongly supports online learning activities successfully. The facilities that have been fulfilled for elementary school teachers in Pelalawan and Rengat districts are 100% of the supporting facilities have been met, 48.7% of interactive learning media have been fulfilled and most students (58.4%) already have online learning aids, such as Smartphones, headsets, and laptops.

### *The Descriptive Analysis of Elementary Teachers' Perception in Producing Learning Media during the Pandemic*

In surveying the elementary school teachers' ability to produce learning media during the pandemic period, three aspects of the teachers' ability shall be observed. Those three aspects are presented in Tables 12 through 14.

**Table 4. The Elementary School Teachers' Perception in Designing Media**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely	2	1.3	1.3	1.3
	Sometimes	59	38.3	38.3	39.6
	Frequently	93	60.4	60.4	100.0
	Total	154	100.0	100.0	

Table 12 informs that the number of teachers who frequently design the media during online learning is 93 people (60.4%). It certainly will support online learning because of the media that teachers frequently design. However, the teachers are not only demanded to be skillful in designing media, but they are also demanded to be able to produce learning media. This information is presented in table 13 as follows.

**Table 5 The Elementary Teachers' Perception in Producing Media**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely	4	2.6	2.6	2.6
	Sometimes	80	51.9	51.9	54.5
	Frequently	70	45.5	45.5	100.0
	Total	154	100.0	100.0	

Based on Table 13, it can be known that the frequency of the teachers producing online learning media is 51.9% (sometimes) and 45.5% (frequently). This indeed becomes the supporting aspect for online learning to make it conducted effectively. Besides producing media, the teachers are also expected to be able to use media effectively. The analysis result of the use of online learning media is presented in Table 14 as follows.

**Table 6 The Elementary Teachers' Perception of Using Media**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely	12	7.8	7.8	7.8
	Sometimes	76	49.4	49.4	57.1
	Frequently	66	42.9	42.9	100.0
	Total	154	100.0	100.0	

Based on Table 6, it can be known that the frequency of the teachers using online learning media is 49.4% (sometimes) and 42.9% (frequently). By using online learning media, the learning objectives can be well-achieved.

Table 12 through 14 provides information that, from 154 teachers, 93 teachers (60.4%) design the learning media independently. Further, only 70 people (45.5%) out of 154 teachers frequently produce the learning media independently. Moreover, out of 154 teachers, only 66 teachers (42.9%) always use learning media in their learning activities. It indicates that no more than 50% of the teachers frequently produce and use media in learning, designing, and using media. This result is reinforced by a study conducted by Harahap et al. (2021) that teachers rarely or sometimes produce learning media for online learning due to their limited time and limited technology skills caused to the age factor.

Further, Rahim et al. (2019) also stated that only 20% of the teachers could produce technology-based learning media. Nevertheless, after providing teachers with training on improving their competency, it increases to 75%. Further, Rosidah et al. (2021) declared that, before conducting a workshop, the teachers have difficulties producing online learning media independently. However, after participating in the workshop, the teachers' ability to produce media is improved. It is proven by the workshop participants' understanding of practicing the materials that have been delivered. The information shows that improving the teachers' ability to produce media can be done by conducting training or workshop. Hence, the stakeholders and educational institutions are expected to conduct training to improve the teachers' ability to develop learning media independently to 100%.

### **Hypothesis Testing**

The hypothesis testing was conducted using the Pearson Product Moment Correlation Coefficient since the data were normally distributed. This hypothesis testing was used to detect the significant correlation between the facilities and teachers' perception of producing online learning media for elementary school teachers in Pelalawan and Rengat. Ho will be accepted if the probability/ Sig. Value is less than 0.05, and Ho will be rejected if the probability/ Sig. value is more than 0.05 (Muhidin & Maman Abdurrahman, 2017). A fast result of the linear regression analysis can be seen in Table 7.

**Table 7 The Pearson Product Moment Correlation Coefficient**

		The perception in Producing Online Learning Media	Online Learning Facilities
Valid	Pearson Correlation	1	0.412**
	Sig. (2-tailed)		0.000
	N	154	154
Valid	Pearson Correlation	0.412**	1
	Sig. (2-tailed)	0.000	
	N	154	154

Based on the data analysis result using SPSS in Table 15 above, for the Pearson Product Moment Correlation Coefficient, it can be inferred that there is a significant correlation between facilities that support the teachers in conducting online learning and the teachers' ability to produce online learning media for the elementary school teachers in Pelalawan and Rengat. The significance value was 0.000 or less than 0.05.

Table 15 informs that facilities are positively and significantly correlated with the ability to produce learning media. If the facilities are sufficient, it will affect the teachers' ability to produce media. This result is in line with Rizal & Nurjaya (2020) that learning facilities strongly affect the teachers' performance. Many factors affect the teachers' competency in producing learning media, such as the school's lack of facilities and teachers' poor understanding of developing technology-based media (R. Abdullah, 2017). The same thing is also stated by Zayyadi et al. (2017) that the teachers' knowledge of technology-based learning media is still poor. Besides, Alwi (2017) stated another factor: the teachers have difficulties producing learning media since it takes more time, and the schools have no appreciation.

Given this, the schools and the government are expected to be able to provide sufficient facilities for the teachers. If the teachers' competency improves, the school and education quality automatically increases. Moreover, the teachers' awareness of continuously developing their competency in producing technology-based learning media is required. It is because mastering technology skills is one of the skills that shall be mastered in this 21<sup>st</sup> century. It helps deal with many challenges in the 21<sup>st</sup> century and future challenges (Shahroom & Hussin, 2018)(Ghufron, 2018). Education will be conducted maximally during this pandemic period by mastering technology skills.

#### 4. CONCLUSION

The result and discussion above obtain the following findings. Basic supporting facilities have been fulfilled 100%. 48.7% of interactive learning media has been met, and the assistive devices for the students fulfill 58.4% of the requirements. Further, 60.4% of the teachers frequently design learning media independently. 45.5% of the teachers frequently produce learning media independently, and 42.9% of the teachers frequently use learning media during online learning. The result of the analysis using the Pearson Product Moment Correlation Coefficient between facilities and teachers' ability obtains a significance value of  $0.000 < 0.05$ . Conclusion: it can conclude that there is a significant and positive correlation between facilities and the teacher's perception of producing learning media. Thus, the research results can be used as a reference for the government or schools to provide learning support facilities so that teachers can develop their abilities in producing learning media. The creation of quality teachers will impact the quality of schools.

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