What Kind of Learning Media do You Want? Need Analysis on Elementary School Online Learning

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Abstract
This preliminary research was conducted to find information on learning media that teachers and students want in online learning. The qualitative descriptive research method is applied in this study. The study was conducted in August 2021. The study was conducted in an elementary school in both urban and rural areas. A total of 105 people were interviewed at the school, including teachers and students. The data collection technique was carried out through a survey using a google questionnaire form which was divided into 2 forms, namely forms for teachers and students. The findings of the teacher survey indicate that learning media is needed to provide students with a realistic picture of phenomena in online learning. By providing interactive learning media, students feel it will be easier to understand the material than just being explained or given assignments. On the other hand, the results of student questionnaires also indicate that they want learning media in the online learning process. Learning media that can convey the topic so that students can see the phenomenon.

Keywords: online learning, learning media, elementary school.

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INTRODUCTION

Until now, all nations across the world have been affected by the COVID-19 epidemic, including Indonesia. To anticipate the spread of the Covid-19 virus, the learning process continued to employ online-based learning (Bramianto Setiawan et al., 2020). Online learning is a type of alternative learning that makes use of the internet to help students learn (Irmada & Yatri, 2021). Online Learning may be done without face-to-face interaction by leveraging the complexity of today's technological gadgets, such as notebooks, tablets, and smartphones. However, some issues occur in online learning, when learning is carried out with a lack of creativity, resulting in a decrease in student interest in learning (Morgan, 2020).

Several studies have shown that there are negative impacts caused by online learning during the COVID-19 pandemic. The findings of Hammerstein et. al. demonstrated a significant negative effect of school closures on student achievement especially among younger students and students from families with low socioeconomic status due to limitations in accessing interactive learning media (Hammerstein et al., 2021). The findings of Clark et al. show that not all online education is equal: students who were given online lessons recorded by higher-quality external teachers had higher test scores than those whose lessons were recorded by teachers from their schools. The educational benefits of distance learning were the same for both rural and urban students, but the test performance of students who used computers for online education was better than those who used smartphones (Clark et al., 2021).

Wati et.al explain that online learning needed practical learning media. So that the needs analysis to develop the learning media according to the needs of learning media during the COVID-19 pandemic (Wati et al., 2020). Nurhikmah et al. also explain that online learning needs to develop blended-based learning media for Biology subjects to improve students' self-learning skills and explore their skills personally (Nurhikmah et al., 2018). In addition, Putri et. al also explained that there were several challenges and obstacles experienced by students, teachers, and parents in online learning. The challenges related to students are limited communication and socialization between students so it requires good creativity from the teacher to overcome these problems (Putri et al., 2020).

Various efforts have been conducted to make the online learning process interesting, such as providing appropriate learning methods and models (Sari et al., 2020) and creating interactive learning media (Iasha et al., 2020). One of the effective methods to make online learning more engaging is to include interactive learning media. Learning media itself is anything that can be used to convey messages or information in the teaching and learning process so that it can stimulate students' attention and interest in learning. Therefore, this preliminary study was conducted to find information on learning media that teachers and students want in online learning during the COVID-19 pandemic, especially for schools both in cities and regions.

METHOD

Research Design

The qualitative descriptive research method was applied in this study. Qualitative descriptive research is a descriptively stated research approach that uses qualitative data. This form of qualitative descriptive study is frequently employed to investigate social phenomena, events, or conditions (Creswell & Creswell, 2017). The research was carried out in August 2021. The investigation was conducted at an elementary school in the urban area (Jakarta and Bandung) and the rural area (Bojonegoro and Blora). This research was declared successful if the majority of respondents needed a learning media that can show a concrete phenomenon in online learning during the COVID-19 pandemic.
Participant
A total of 105 people were interviewed at the school, including teachers and students. The demographics of these participants are shown in Table 1.

| Type          | Frequency | Percentage (%) |
|---------------|-----------|----------------|
| Gender        |           |                |
| Male          | 39        | 37.14          |
| Female        | 66        | 62.86          |
| Role          |           |                |
| Teachers      | 26        | 24.76          |
| Students      | 79        | 75.24          |
| Region        |           |                |
| Urban Area    | 58        | 55.24          |
| Rural Area    | 47        | 44.76          |

Data Collected and Data Analysis
The data collection technique was carried out through a survey using a google form questionnaire which was divided into 2 forms, namely a form for teachers and students. The questionnaire was consisting of five statement items both teachers’ and students’ questionnaire forms. The data analysis technique used was descriptive qualitative by analyzing and summarizing the data that had been collected to provide an overview of the conditions and situations that occur in the field.

RESULT AND DISCUSSION
Based on the results of research conducted in August 2021, 26 data were obtained from the teacher's questionnaire which is shown in table 2.

| Statement                                                                 | Response (%) |
|---------------------------------------------------------------------------|--------------|
| In online learning activities in elementary schools, in addition to        | 4  | 3  | 2  | 1  |
| strategies, methods, and approaches, interactive media are needed          | 38.46 | 61.54 | 0  | 0  |
| that display realistic phenomena                                           |              |      |    |    |
| The learning media used during online learning is still considered not     | 11.54 | 57.69 | 23.08 | 7.69 |
| optimal so that students feel bored in online learning activities         |              |      |    |    |
| Teachers have difficulty building problem-solving concepts in the          | 11.54 | 42.31 | 38.46 | 7.69 |
| online learning process because the source of teacher learning             |              |      |    |    |
| activities is abstract                                                     |              |      |    |    |
| Teachers experience limitations in developing interactive                  | 15.38 | 50    | 26.92 | 7.69 |
| multimedia type learning media due to the lack of information and training|              |      |    |    |
| provided                                                                  |              |      |    |    |
| Teachers need to provide Augmented Reality media that can                  | 42.31 | 57.69 | 0  | 0  |
| present phenomena realistically                                           |              |      |    |    |

4 = strongly Agree; 3 = Agree; 2 = Disagree; 1 = Strongly Disagree

Based on table 2 it can be seen that 38.46% of teachers strongly agree and 61.54% agree that in addition to methods and approaches in learning, interactive media are needed to support the learning process. The addition of interactive media in the learning process could increase student learning motivation, especially in online learning which has many limitations. This is in line with the findings of Puspitarini et. al., who found...
that including interactive media in the learning process might boost student motivation (Puspitarini & Hanif, 2019). Furthermore, Saputri et. al. claimed that offering interactive media throughout the learning process might boost students' learning motivation (Saputri et al., 2018).

In the second statement, the majority of teachers believe that the learning media utilized during online learning is still deemed inadequate, causing students to become bored while participating in online learning activities. This is also described in Wijaya et. al. research's which found that the learning media available at the time isn't optimal for online learning (Wijaya et al., 2020). In addition, Sutarto et. al. also reported that so that students do not get bored in online learning, learning media must be made simple and attractive (Sutarto et al., 2020).

In the third statement, most teachers also agree that they have difficulty building problem-solving concepts in the online learning process because the sources of teacher learning activities are abstract. Teachers in online learning face situations when they cannot provide examples of actual learning, forcing students to imagine each phenomenon itself (Gillis & Krull, 2020). Abstract learning makes it harder for teachers to describe a learning subject (Kim, 2020; Rosnaeni & Prastowo, 2021).

Teachers agree in the fourth statement that they are limited in producing interactive multimedia-type learning material owing to a lack of information and training, particularly in the rural area. This is in accordance with the findings of Setiawan et. al., who found that teacher in rural regions has trouble to create interactive learning media owing to a lack of resources in the area (Bramianto Setiawan & Iasha, 2020). but some teachers, especially in urban areas, do not experience difficulties because they get better than teachers in rural areas.

In the last statement, the teacher also agrees that they need to provide Augmented Reality media that can realistically present phenomena during online learning. Augmented Reality media that can realistically display phenomena can improve student learning outcomes (Laurens et al., 2017). In addition, Augmented Reality media can also improve problem-solving skills (Ulandari et al., 2019), self-efficacy (Nursasi, 2019), and critical thinking skills (Tan et al., 2020).

In addition to distributing questionnaires to teachers, to analyze the needs of learning media during online learning, questionnaire sheets were also distributed to students. The 79 data were obtained from the student's questionnaire which is shown in table 3.

| Statement                                                                 | Response (%) | Response Description                      |
|---------------------------------------------------------------------------|--------------|--------------------------------------------|
| The learning process that takes place in the classroom with the help of the teacher | 40.51 | Explaining/lecture                        |
|                                                                           | 11.39 | Asking me and my friends to discuss       |
|                                                                           | 48.10 | Others (direct assignments, using interactive media) |
| Desired media in learning process                                         | 12.66 | E-Book                                    |
|                                                                           | 22.78 | Picture                                   |
|                                                                           | 64.56 | Interactive learning media                |
| Interactive multimedia that displays phenomena realistically makes it easier to understand the material | 87.34 | Yes                                       |
|                                                                           | 12.66 | No                                        |
| The learning process is already using a smartphone                        | 63.29 | Yes                                       |
|                                                                           | 36.71 | No                                        |
| Parental permission regarding the use of cellphones for study             | 98.73 | Allow                                     |
|                                                                           | 1.27  | Does not allow                            |
In online learning, there are several ways that teachers do to teach the material to students. The results of student responses showed that 40.51% of students stated that the teacher used the lecture method in the learning process. Then 48.10% thought that the teacher gave assignments or learning media in the learning process and the rest the teacher asked the students to discuss with their friends. In online learning, there are indeed various limitations, especially in rural areas so that teachers only give assignments to students in the learning process, this is in line with the research results of Setiawan et.al where in rural areas, teachers teach by giving assignments through Whatsapp groups (Bramianto Setiawan & Iasha, 2020). Inversely proportionate to urban areas where Microsoft teems have been used to enable instructors to educate using lecture and discussion approaches (Wuryandani et al., 2021).

In the second statement, students prefer interactive media in the learning process. This is because, at elementary school, students can better understand the material if the learning process is carried out using interactive media which can be in the form of videos, Augmented reality, Virtual Reality, or games that display examples of real objects compared to having to learn alone using books (Fitriana et al., 2021; Saputri et al., 2018). Furthermore, because students can envision through images, the use of pictures as a learning medium may offer an overview of the topic. This is in line with the findings of Pinem et. al., who found that adding picture media to the classroom can increase student learning outcomes (Pinem et al., 2018).

In the third statement, students agree that interactive multimedia that displays phenomena realistically can make it easier for them to understand the material. Elementary school kids, according to Piaget’s theory, are more in the concrete operational stage, thus the learning media utilized must be able to represent concrete or realistic items (Juwantara, 2019). However, because online learning limits teacher-student connection, teachers are unable to give actual learning media (Yustitia et al., 2021). Therefore, augmented reality or virtual reality is a medium that can be used in online learning because this application can bring students into a virtual world that displays material realistically (Bourguet et al., 2020; Liou et al., 2017).

During the covid-19 epidemic, the learning method was shifted from offline to online, resulting in greater use of laptops, PCs, and smartphones in the learning process (Hermanto & Srimulyani, 2021). This is by the fourth statement where students have used smartphones as learning tools because they are simpler and easier to carry. This is in accordance with the fourth statement where students have used smartphones as learning tools because they are simpler and easier to carry (B Setiawan et al., 2017). In addition, parents have also allowed students to use smartphones because the learning process can only be done through these tools (Ferri et al., 2020).

CONCLUSION

Research on the analysis of learning media needs in online learning during the COVID-19 pandemic has been successfully carried out. The findings of the teacher’s survey suggest that learning media is required to give students a realistic image of the phenomena in online learning. By providing interactive learning media, students feel it will be easier to understand the material than just being explained or given assignments. On the other hand, the results of the student questionnaire also showed that they wanted a learning media in the online learning process. learning media that can genuinely convey the topic so that students may see the phenomena. The results of this study can also provide an illustration that in online learning teachers can develop learning media that can display phenomena realistically such as based on Augmented Reality or Virtual Reality.

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