Implementation of Blog-Based Learning Media for Enhancing Students Elementary School Intelligent

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Abstract—This study aims to develop a blog-based PowerPoint learning media. This research aims to describe the practical results of developing blog-based PowerPoint learning media for grade II elementary school students. The research used is development research using the ADDIE model. The data collection technique was done by using a questionnaire. This involved 25 elementary school students in Indonesia. The results of research obtained that the results of the questionnaire analysis of the teacher's response were 70.8%, and the student's response was 7.4%. Based on the percentage of the score, the blog-based learning media is included in the very practical category so that it is suitable for use in learning.

Keywords—blog, multiplication, elementary school

I. INTRODUCTION

The current outbreak of Coronavirus Disease (Covid-19) has had a tremendous impact on all sectors of life, both for Indonesian people and for the world community in general. The impact caused various changes, one of which was in the education sector. The government took a policy through the Ministry of Education and Culture of the Republic of Indonesia issued a Circular No. 4 of 2020 concerning the Implementation of Education Policies in the Emergency Period for the Spread of Covid-19 which states that during this pandemic, learning activities are carried out at home through distance or online learning which is meaningful for students so that adjustments are needed [1].

During the current Covid-19 pandemic, it is necessary to make adjustments both by teachers and students in the implementation of teaching and learning activities. Teaching and learning activities that were originally carried out face-to-face now require teachers and students to carry out these activities online. This indirectly forces teachers to understand and master technology as a means of learning media that supports the implementation of optimal teaching and learning activities. In addition, teachers are also required to be able to innovate to develop learning media independently. The innovation of learning media development is carried out to increase motivation and reduce student boredom during online learning.

The innovation of learning media development carried out by teachers is felt to have a high enough urgency in realizing meaningful online teaching and learning activities. With the innovation of learning media development, the presentation of the material will be varied, not monotonous, and presented according to the needs of students. Another positive thing is that it can attract students' attention and overcome boredom during learning activities. Media development allows a learning designer to design teaching and learning activities using various types of media that take advantage of technological and information developments [2]. This shows that the development of learning media is very important in the education sector, especially during the Covid-19 pandemic.

The presence of learning media in teaching and learning activities will encourage the creation of a learning atmosphere that is fun, conducive and can provide a meaningful learning experience for students. Elementary school students still need the help of learning media to be able to understand the material, especially in mathematics. The existence of learning media will greatly help elementary school students whose thinking level is at the concrete operational stage to bridge students' understanding of abstract mathematical material. With the learning media as an intermediary tool in teaching and learning activities, it
will allow students to understand the subject matter more easily than only through the lecture method by the teacher [3]. This indicates the importance of using instructional media in teaching and learning activities.

Researchers conducted interviews with second-grade teachers in Cluster 4, Ngantang Regency, Malang Regency to collect initial data for this study and obtained information that during this pandemic period, teachers mostly used the WhatsApp application as a support and facilitate communication between teachers and students during online learning. The teaching materials used by the teacher include using Student Worksheets, thematic books, and learning videos which are mostly taken from YouTube.

Based on the results of the interviews, it can be concluded that the teaching materials and learning media used are deemed not capable of creating optimal learning. In fact, the perceived result is boredom in students while studying. This is evidenced by the results of learning mathematics which is still relatively low. Efforts that have been made by the teacher are teaching the same material repeatedly by sending learning videos to deepen the material.

During the implementation of online learning, the teacher revealed that there were many perceived obstacles, namely the lack of understanding and skills of the teacher to provide varied learning media to overcome students’ problems in understanding the subject matter. Seeing the phenomena that occur in the field motivates researchers to conduct research on the development of blog-based PowerPoint learning media. The development of blog-based PowerPoint learning media will be packaged as attractively as possible with programs that are easy to operate to improve the learning outcomes of second-grade elementary school students [4].

The type of web chosen in the research is a blog. This is done with the consideration that the blog is easy to operate, manage, and designed according to its creator’s uniqueness. Blogs can be designed as attractively as possible according to the characteristics of the blog owner himself so that blog users do not feel bored [5] and of course, adapted to student characteristics and assistance by class teachers and the role of parents at home so that student learning outcomes can increase [6].

Multiplication is one of the mathematics materials in grade II SD that can be developed in the form of blog-based PowerPoint media. Based on the results of interviews with teachers obtained information that there are still many students who are constrained in understanding multiplication material. Students have difficulty in solving problems about multiplication with the result of two numbers. Students also still have difficulty in understanding the concept of storing in multiplication. The development of blog-based PowerPoint learning media is deemed necessary as an alternative solution to overcome problems that occur in the field. However, in its implementation, it is necessary to cooperate with parents at home to assist students in their use [7].

II. METHOD

This research includes research and development using the ADDIE model (Analyze, Design, Development, Implementation, Evaluation) [8]. The researcher only discusses the evaluation stage in this article to determine the practicality of developing blog-based PowerPoint learning media. Researchers involved three teachers and 47 students. The instrument used is a questionnaire on the practicality of using blog-based PowerPoint learning media for teachers and students. The questionnaire used to assess the practicality of the product developed is a questionnaire with a Likert scale and a questionnaire with a Guttman scale. The Likert scale questionnaire is intended for classroom teachers, while the Guttman scale questionnaire is intended for students.

III. RESULT AND DISCUSSION

Table 1 shows the data on the practical results of using blog-based PowerPoint media development media obtained from teacher responses. The practicality test of the product developed was carried out in three meetings. According to the teacher's assessment of the overall aspects, each meeting has met the practical criteria. Table 2 shows the data on the practical results of using blog-based PowerPoint media development media obtained from student responses. The questionnaire given to students contained aspects of ease of understanding the material and ease of use of the developed learning media.

The practicality of a product as a result of development research can be seen from two aspects: the opinion of practitioners who state that what is developed can be used under normal conditions and the reality that shows that what is developed can be applied by teachers and students [9]. From the results of the questionnaire reinforced by interview data to the teacher, it can be concluded that the development of blog-based PowerPoint learning media is practical to be applied to second-grade elementary school students. According to the teacher, this media is more interactive, includes more interesting animation images, and has contextual material that can increase children's motivation in learning [10]. Students' learning motivation can be increased with interactive and more creative learning media, and increased motivation can improve learning outcomes. In addition, the presence of media in learning will also make it easier for students to understand the subject matter because elementary school students are still at the concrete operational stage [11], [12]. Learning media is a medium that bridges second-grade elementary school students with concrete operational...
thinking levels in understanding abstract mathematical material. The problems presented using the media are easy to understand. However, this cannot be separated from the guidance of parents who accompany students to study during online learning.

**TABLE I.** **SCORES AND CRITERIA FOR PRACTICAL RESULTS FROM TEACHERS**

<table>
<thead>
<tr>
<th>No</th>
<th>Meeting</th>
<th>Score</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I</td>
<td>59</td>
<td>Practical</td>
</tr>
<tr>
<td>2</td>
<td>III</td>
<td>68</td>
<td>Very Practical</td>
</tr>
<tr>
<td>3</td>
<td>V</td>
<td>75</td>
<td>Very practical</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td>70.8</td>
<td>Very Practical</td>
</tr>
</tbody>
</table>

**TABLE II.** **SCORES AND CRITERIA FOR PRACTICAL RESULTS FROM STUDENTS**

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Actual Score</th>
<th>Criteria</th>
<th>Percentage of Answer “Yes”</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>4.2</td>
<td>Very Practical</td>
<td>84%</td>
</tr>
<tr>
<td>II</td>
<td>3.2</td>
<td>Very practical</td>
<td>80%</td>
</tr>
<tr>
<td>Total</td>
<td>7.4</td>
<td>Very Practical</td>
<td></td>
</tr>
</tbody>
</table>

* = Ease of understanding, II = ease of implementation/completion of tasks

Other information obtained is that the blog-based PowerPoint learning media is very attractive to students because of the illustrations in it. In addition, it makes it easier for students to replay the explanation of the material in the media because of the use of the media online [13]. The practicality of this blog-based PowerPoint learning media cannot be separated from the support and guidance, as well as directions from parents at home. This is needed because grade II elementary school children are not yet fluent in reading. Parental assistance when studying at home will greatly assist students in understanding the material [14], [15]. Parents replace the teacher’s role to provide explanations regarding the material and assignments from the teacher at home. This will also have a positive impact, namely bringing the child closer to his mother or father.

**IV. CONCLUSION**

Based on the results of the research and discussion that have been described, it can be concluded that the product is included in the "Very Practical" category so it is very suitable to be used in learning. This is based on the average practicality of the response of users (teachers) of 70.8%, user responses (students) of 7.4%. The product can be applied to class II elementary school learning on multiplication material. Products in the form of blog-based PowerPoint learning media in their use require guidance and understanding provided by teachers and parents of students. The product is also proven to be able to foster motivation and enthusiasm for learning in students. This is based on comments given by students that the learning media developed by researchers is interesting, and they enjoy using it. Products in the form of learning media that are designed and presented attractively are proven to provide information in the form of subject matter and increase the enthusiasm of learning in students so that they can overcome boredom while studying.

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**REFERENCES**


