Development of Whatsapp Instant Messaging Applications as Online Learning Media to Improve Social Science Learning Outcomes in Class VIII SMP Negeri 2 Sumbul Academic Year 2020/2021

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ABSTRACT
This study aims to produce a WhatsApp instant messaging application product as an online learning medium in social studies subjects that is feasible and effective. This type of research is development research that uses the Borg and Gall development model. The results show: (1) The learning material expert test is included in the very feasible criteria, namely with a score of 93.26%. (2) The learning instructor design expert test is included in the very criteria feasible with a score of 92.36%. (3) The learning media expert test is included in the very feasible criteria, namely with a score of 92.96%. The results of hypothesis testing prove that there are differences in student learning outcomes who are taught using the WhatsApp instant messaging application product in the form of learning videos with students who do not use the WhatsApp instant messaging application product.

Keywords: Whatsapp instant messaging application, Social Sciences.

1. INTRODUCTION
Science and technology have changed today's world civilization. With these rapid developments we have arrived at the fourth generation industrial revolution (industrial revolution 4.0) where this revolution is marked by the emergence of the most up-to-date modern technology with computerized and digitalized systems that support the connectivity of all components in the world. Industry and other fields Corona Virus (Covid-19) is a grievous disaster for the whole world, including Indonesia. Covid-19 is a disease that is susceptible to infection due to the newly discovered variant of the corona virus. The emergence of the Covid-19 pandemic, automatically changes the total pattern of all human activities and activities throughout the world. Many things were carried out in an effort to stop the spread, as well as transmission, such as social restrictions in all forms of activity, including learning activities. According to UNESCO, there are 1.5 billion school-age children affected by Covid-19 from 188 countries: 60 million are in Indonesia. This condition causes learning in schools to be abolished. This matter is based on the Minister of Education and Culture regarding Circular No. 4 Year 2020, which states that learning must be done online from home (distance teaching and learning activities). As happened in SMP Negeri 2 Sumbul for example, this junior high school is one of the schools located in rural areas. It has good building infrastructure. However, due to the impact of the pandemic and the recommendation of the local government which states that educational units are prohibited from conducting face-to-face learning processes. Thus, SMP Negeri 2 Sumbul is still carrying out the teaching and learning process without face to face. Hadisputra (2020) mentions that there are many ways to optimize online learning. The development study focuses on developing social media using the WhatsApp application as a support for social studies teaching and learning media. In this regard, the researcher conducted research and development with the title WhatsApp Instant Messaging Application Development as an Online Learning Media to Improve Social Studies Learning Outcomes in Class VIII SMP Negeri 2 Sumbul Year Teaching 2020/2021.

2. METHOD
This study is classified as a development/research and development (R&D). Research and development methodologies are closely related to learning technology.
Studies in the field of learning technology are already related to problems in developing products and designs, especially media, teaching materials, and learning systems. It is known that learning technology can be defined as the practice and theory of design, use, management, development, and evaluation of resources for learning (Setyosari, 2013). On that basis, this study seeks to improve learning media based on student needs.

The product design in this study was carried out in 9 stages. The 9 steps of the development model proposed by Dick & Carey (2001) are: (1) needs analysis to identify goals, (2) instructional analysis, (3) learner and context analysis, (4) formulating performance goals, (5) developing research instruments, (6) developing learning strategies, (7) developing and selecting learning materials, (8) conducting formative evaluations, (9) revising. The following are the stages of developing the Dick & Carey model to product formation, namely from the stages of needs analysis and identification of goals to the development of learning materials. Conduct formative evaluations that can be used for system feedback. It goes through three stages; a) individuals, b) small groups, c) field trials.

System revisions were made based on the feedback obtained during the formative evaluation. There are two kinds of revisions here; a) changes to the content or substance so that it can be more effective and accurate, b) changes to procedures. Summative evaluation emphasizes the achievement of the learning process through the achievement of test scores. The development procedure describes the procedures for developing a product. The procedures or procedures in this study use two stages, namely developing the WhatsApp instant messaging application through product design, while the next stage is finding out the effectiveness product. The steps for developing the WhatsApp instant messaging application to support online learning for class VIII Social Studies students at SMP Negeri 2 Sumbul adapt the 10-step development procedure.

3. RESULT AND DISCUSSION

3.1 Teaching using WhatsApp

Based on studies that have been carried out on social studies learning outcomes, it concludes that if the score of learning outcomes for material advantages and limitations between spaces, as well as the role of economic actors and in an economy with WhatsApp instant messaging application media products in the form of learning videos, the lowest score is 60 while the highest score is 95. Mean score X = 84.5, Standard deviation (SD) = 9.94, the results of the calculation can be seen in Appendix 9, page 240. This means that almost all of the total number of students reach the absorption capacity of KKM, so it can be considered effective in terms of the quality of their learning.

To observe student scores, use interval classes, namely absolute inter-frequency scores as the number of students scoring learning outcomes, and relative frequency as the percentage of learning outcomes score.

Table 1. Social Studies Learning Outcomes Using WhatsApp Instant Messaging Application Media Products

<table>
<thead>
<tr>
<th>Class Interval</th>
<th>F. Absolute</th>
<th>F. Relative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>60-65</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>66-71</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>72-77</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>78-83</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>84-89</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>90-95</td>
<td>15</td>
</tr>
<tr>
<td>Amount</td>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

The results of social studies learning using the WhatsApp instant messaging application as a learning video are depicted in the form of a histogram in Figure 1.

3.2 Teaching without WhatsApp

Based on studies that have been carried out on social studies learning outcomes, it concludes that if the score for learning material advantages and limitations between spaces, as well as the role of economic actors and in an economy without WhatsApp instant messaging application media products in the form of (conventional) learning videos, the lowest score is 40 and the highest score is 90, the average score X = 63.66, standard deviation (SD) = 9.9, the results of the calculation can be seen in Appendix 9 page 238. Based on this it can be said that the majority of the total number of students achieve absorption KKM, which means if the learning effect is not
following the quality of learning. Through the results of these calculations, social studies learning in this class is stated to be still less effective.

To observe the scores of students who use interval classes, namely absolute inter-frequency scores: the number of students who score learning outcomes, and the relative frequency, the total percentage of learning outcomes scores. A description of the results of social studies learning on the material advantages and limitations between spaces, as well as the role of economic actors as well as in an economy without the WhatsApp instant messaging application (conventional) media products are listed in Table 2.

Table 2. Social Studies Learning Outcomes Without Using WhatsApp Instant Messaging Application Media Products (Conventional)

<table>
<thead>
<tr>
<th>Class</th>
<th>Class Interval</th>
<th>F. Absolute</th>
<th>F. Relative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>40-48</td>
<td>1</td>
<td>3.3%</td>
</tr>
<tr>
<td>2</td>
<td>49-57</td>
<td>5</td>
<td>16.6%</td>
</tr>
<tr>
<td>3</td>
<td>58-66</td>
<td>15</td>
<td>50%</td>
</tr>
<tr>
<td>4</td>
<td>67-75</td>
<td>6</td>
<td>20%</td>
</tr>
<tr>
<td>5</td>
<td>76-84</td>
<td>2</td>
<td>6.6%</td>
</tr>
<tr>
<td>6</td>
<td>85-93</td>
<td>1</td>
<td>3.3%</td>
</tr>
<tr>
<td>Amount</td>
<td></td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

The results of social studies learning without WhatsApp (conventional) instant messaging application media products can be depicted in the form of a histogram.

Figure 2. Histogram of Social Studies Learning Outcomes without WhatsApp Instant Messaging Application Media Products

4. DISCUSSION

Based on the results of validation and testing, the media product of the WhatsApp instant messaging application based on video learning material on the advantages and limitations of inter-space, as well as the role of economic actors and in an economy is very feasible to use at the teaching and learning stage.

Through these media, the teaching and learning process is carried out effectively. This matter can be considered through the teaching and learning stage when it takes place. The product can bridge students and teachers during learning activities even though online. Thus, even in conditions of distance learning, students remain active and still receive adequate explanations of material that can be accessed regardless of time or location.

Abdillah (2021) reveals that social media applications such as WhatsApp can bridge the learning process for conventional models with face-to-face systems, as well as for distance modes without reducing the effectiveness of learning. In line with Riyana (2007) states that to create a learning video that can optimize the activity and effectiveness of use, it is necessary to pay attention to its characteristics. One of the many criteria for the learning video in question includes: user-friendly (easy to use). This video media uses simple and understandable language, the delivery of information is helpful, including making it easier for users to respond, and access according to their wishes. Thus, it can be concluded that the data above proves that the use of this product is very feasible for students in social science material.

Media is said to be effective after showing satisfactory results as long as it achieves the stated goals. The effectiveness of learning can be measured through the quality of learning according to the narrative of namely the level of information presented so that students are easy to learn or the error rate is getting smaller. The smaller the error rate, the more effective teaching and learning activities for students are. Determining the effectiveness of learning depends on how much students master the objectives or often known as learning mastery. In this case, to see the effectiveness of the product, a product trial was carried out in the learning process. The effectiveness of the media is obtained through student learning outcomes. Miarso (2011) states the benchmarks that can determine how effective the teaching and learning stage is, namely: a) organizing the material well; b) effective communication; c) high enthusiasm related to efforts to master the learning material; d) being positive for students; e) giving grades fairly; f) flexibility in teaching and learning approach; g) appropriate learning outcomes for students.

Through the results of the study data processing, the average social studies teaching and learning outcomes after using the media product of the WhatsApp instant messaging application based on learning videos for class VIII students of SMP Negeri 2 Sumbul is 83.5. Social studies learning outcomes without WhatsApp instant messaging application media products (conventional) are 63.6. From this data, it proves that the WhatsApp instant messaging application media product for class VIII students of SMP Negeri 2 Sumbul is feasible and effective to use to optimize students' abilities.
Riyana (2007) explained that to design learning videos that can maximize motivation, effectiveness, and user activity, that means it is necessary to develop learning videos according to or need to fulfill their characteristics. The learning video criteria include (1) Clarity of Massage. Through video media, students can examine all learning messages significantly and receive more complete information so that it will be stored in their memories for a long time; (2) Stand Alone. J. Eemp (1985) states that learning videos provide information, represent the stages, and suitability of skilled, short, and time-building teaching, including being able to influence behavior and can be repeated. Thus, the conclusion obtained states that learning media can maximize student demand for learning, focus on the material, open their minds, be responsive to questions so that the classroom atmosphere is more pleasant, maximize learning effectiveness, and improve the quality of learning outcomes.

5. CONCLUSION

Based on the results of data processing, the average value of the learning outcomes of students who are taught using WhatsApp instant messaging application media products on the material advantages and limitations of inter-space and the involvement of economic actors in an economy with student learning outcomes taught without using messaging application media products WhatsApp instant (conventional) on the advantages and limitations of inter-space and the involvement of economic actors in an economy shows that students who are taught using WhatsApp instant messaging application media products are "more effective" than students who are taught without using WhatsApp instant messaging application media products (conventional). This is shown. Based on the results of the t-test to a significant level = 0.05, the results of the hypothesis test for learning outcomes in the two classes after being given treatment mean that the value of t_count > t_table) is 8.162 > 1.671, which means that it is concluded that there is a rejection for (Ho) while (Ha) is accepted. The results obtained, namely, the research hypothesis, explains that social science learning outcomes increase when using the WhatsApp instant messaging application media product compared to without using the WhatsApp instant messaging application media product.

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