TRAINING IN MAKING INTERACTIVE LEARNING MEDIA (CYCLE OF HYDROLOGY AND LAYERS OF THE ATMOSPHERE) SMAN 5 PARIAMAN AND SMAN 1 ULAKAN TAPAKIS PADANG PARIAMAN

*Deded Chandra¹, Sri Mariya¹, Sari Nova¹, Helfia Edial¹, Lailatur Rahmi¹, Srikandi Putri¹, Rery Novio¹, Nofrion¹, Aprizon Putra²

¹Department of Geography, Faculty of Social Sciences, Padang State University, Indonesia ²Environmental Science Program, Universitas Negeri Padang, Indonesia Jl. Prof. Dr Hamka, Air Tawar Barat, Padang Utara, Air Tawar Barat, Padang, West Sumatra 25171 Email: dededchandra@yahoo.com

*Corresponding Author, Received: Sept 28, 2021. Revised: Oct 25, 2021. Accepted: Dec 5, 2021

ABSTRACT: Aims of this article is to improve the ability of teachers and students to create interactive learning media and improve the understanding and ability of teachers in pedagogic aspects that can be seen from the process of designing Lesson Plan (RPP), especially in terms of choosing a model or method and learning media. . This activity was carried out at SMAN 5 Pariaman and at SMAN 1 Ulakan Tapakis, Padang Pariaman using training methods, question and answer and practice. The participants involved are geography teachers and students who are represented in each class with 5 participants. With the Covid-19 Pandemic and the appeal from the government to comply with health protocols by checking temperature, washing hands, using hand sanitizers, maintaining distance, and wearing masks, this activity is carried out with limited participants, so that Covid-19 does not become the newest cluster in the region. activity. These activities include conducting training related to the design of effective learning media and conducting training related to the manufacture of interactive learning media for the cycle of hydrology and layers of the atmosphere for geography teachers and students. The results of the training at SMAN 5 Pariaman and at SMAN 1 Ulakan Tapakis, Padang Pariaman, were in the form of 3D media and increased the abilities possessed by teachers and students in making learning media in this case the 3D media of the cycle of hydrology and layers of the atmosphere. From this training, teachers get an increase in their ability to understand pedagogical aspects which can be seen from the process of designing lesson plans, especially in terms of choosing models and learning media. Geography teachers also better understand adequate competence in terms of designing and utilizing media so as to create quality, effective and interactive learning.

Keywords: Lesson Plan, Pedagogic, Learning Media.

This work is licensed under the Creative Commons Attribution-ShareAlike 4.0 International License

1. INTRODUCTION

Learning has several important elements that must be fulfilled, one of which is learning media which is one of the important elements in supporting the learning process. Explains that learning is a process that is intentionally designed to create learning activities in individuals [1]. The use of media should be an important part of the learning process. According to [2] explains they are all forms of intermediaries used by people who spread ideas so that the idea or idea reaches the recipient. Understanding learning media is a combination of materials and tools or a combination of software and hardware.

The use of learning media can bridge the problems of the limited absorption of students and the ability of

teachers to manage to learn in the classroom. Making learning media for most may be amazing, including learning geography for the high school level. Learning media are everything that can be used to transmit messages from the sender to the recipient of the message in this case the process of thoughts, feelings, concerns, and interests and the attention of students so that the learning process can be established [3-10]. Learning geography is not only limited to reading material, but remembering and understanding what has been learned so that understanding of concepts, principles, and scientific abilities of students' processes can be developed.

Explain the benefits of learning media in the student learning process, namely [11-13]:

Sumatra Journal of Disaster, Geography and Geography Education, December, 2021. Vol.5, No. 2, pp. 126-130 Disaster, Geography, Geography Education http://sjdgge.ppj.unp.ac.id/index.php/Sjdgge ISSN : 2580 - 4030 (Print) 2580 - 1775 (Online), Indonesia

- 1. Learning process will attract more engagements so it can foster learning motivation
- 2. Learning materials will have precise meaning so its easier to understand and it will support their ability to understand the learning materials and goals.
- 3. Learning methods will be more varied, not only teachers verbal speeches adn students will not be bored and also saved teachers energy especially those who teach more sessions.
- 4. Students will engaged in more learning activities because their not only waiting for teachers information but also other learning activities such as observing, demonstrating and presenting.

In geography, subjects are closely related to spatial, so it is necessary to make 2D or 3D media to simplify the concepts. In that way, students will easily understand the material and it is reflected directly in their minds. Learning media is very crucial for stimulating the students thoughts, feelings, attention, interests, and learning motivation to make teaching and learning process can run smoothly.

Based on the results of observations that has been made at SMAN 5 Pariaman and SMAN 1 Ulakan Tapakis, Padang Pariaman, there are problems in the teaching and learning process for geography. The problems include the lack of use of learning media in the learning process and the lack of concrete media development that affects the low level of interaction and attention from the students involved in teaching and learning activities, especially during hydrology and meteorology sections. This is due to the teacher's lack of creativity in developing learning media related to hydrology and meteorology.

Improving the quality of student learning requires an appropriate learning strategy and learning media. This kind of media depicts in 3D so the picture will look like the actual situation. Making learning media for the cycle of hydrology and layers of the atmosphere can take an example from school environment, with these learning media the teacher can explain not only through pictures or videos but teacher directly shows how the cycle of hydrology and layers of the atmosphere works in the real world.

Based on observations and interviews with teachers of geography at SMAN 5 Pariaman and SMAN 1 Ulakan Tapakis, Padang Pariaman, there are several problems that occur in learning geography, like the lack of availability of learning media and the lack of 3D media development that affects the low level of participation, interaction, and students' attention to teaching and learning activities, especially when learning the cycle of hydrology and layers of the atmosphere.

These problems certainly affect the quality of learning and student achievement. The quality of

learning will be effective if students easily understand and engage in the teaching and learning process. So it is crucial for a teacher to prepared an appropriate learning strategy and learning media to improve the learning process. These problems will be affecting students achievements for quality education.

Based on the description about the situation analysis and research partner's problem, Pengabdian Masyarakat team of the Department of Geography FIS UNP offers a solution to solve these problems with several activities, such as conducting training to increase the ability to develop Geography learning media, training to increase mastery and utilization of learning media in the form of atmospheric layers and the cycle of hydrology.

2. METHODS

This Pengabdian Masyarakat Activity, Department of Geography, FIS UNP, was held at SMAN 5 Pariaman and SMAN 1 Ulakan Tapakis, Padang Pariaman. With the Covid-19 pandemic and the appeal from the government to comply with health protocols by checking temperature, washing hands, using hand sanitizer, maintaining distance, and using masks, and not using masks, so that the latest COVID-19 transmission at the activity site. Participants involved in this service activity are geography teachers and students in class XI with a total of 5 people. The implementation plan can be seen in Table 1 below:

Table 1. The Implementation Plan

No	Activit ies	Type of Activities	Description
1	I	Increased knowledge about designing effective learning media	Informant provide material and then give assignments in the format of 25% theory and 75% practice in designing learning media
2	Π	Making and using learning media training, such as learning media model for the cycle of hydrology and layers of the atmosphere	The informant gave the workshop in designing the cycle of hydrology and layer of atmosphere learning media. Each teacher makes learning media according to the specified Standart Competencies
3	III	Training on making and using learning media, such as learning media model for the cycle of hydrology and layers of the atmosphere	The Informant will giving material and then giving assignments in the format of 25% theory and 75% practice designing the cycle of hydrology and layers of the atmosphere. Each student makes learning media according to the specified Standart Competencies

Sumatra Journal of Disaster, Geography and Geography Education, December, 2021. Vol.5, No. 2, pp. 126-130 Disaster, Geography, Geography Education http://sjdgge.ppj.unp.ac.id/index.php/Sjdgge ISSN : 2580 - 4030 (Print) 2580 - 1775 (Online), Indonesia

3. RESULTS AND DISCUSSION

This training activity for making geography learning media (cycle of hydrology model and layers of the atmosphere) held on August 7, 2021, 09.00-15.00 WIB at SMA Negeri 5 Pariaman and August 14, 2021 at 09.00-15.00 WIB at SMA Negeri 1 Ulakan Tapakis, Padang Pariaman. The training was carried out in two classes with training instructors of Mr.Deded Chandra, S.Si, M.Si, who was accompanied by teams of lecturers like Mr. Drs. Helfia Edial, M.T, Ms.Sri Mariya, S.Pd, M.Pd, Ms. Lailatur Rahmi, S.Pd, M.Pd and Ms. Sri Kandi Putri, S.Si, M.Sc. This training was attended by three geography teachers, Zulkifli, S.Pd with 5 students from 11-grade social stream SMAN 5 Pariaman and also Ms. Rosmawati Josan, S.Pd and Ms.Dra. Zet Habrida, S.Pd with 5 students 11-grade. The following is a photo of the activity:



Fig1. Opening ceremony of Media making of the cycle of hydrology and layers of the atmosphere training



Fig 2. The explanation process for making cycle of hydrology media and layers of the atmosphere

Sumatra Journal of Disaster, Geography and Geography Education, December, 2021. Vol.5, No. 2, pp. 126-130 Disaster, Geography, Geography Education http://sjdgge.ppj.unp.ac.id/index.php/Sjdgge ISSN : 2580 - 4030 (Print) 2580 - 1775 (Online), Indonesia



Fig 3. The Process of Making learning media of the cycle of hydrology Media and layers of hydrology



Fig 4. Results of Model Media Training on the cycle of hydrology and layers of the atmosphere

Implementation of Pengabdian Masyarakat at the Department of Geography FIS UNP with the title Training on Making Interactive Learning Media (Cycle of Hydrology and Layers of the atmosphere) at SMA N 5 Pariaman and at SMA N 1 Ulakan Tapakis, Padang Pariaman. This media creation training is based on the awareness about the importance of helping teachers to have the ability to make media not only 2D such as power points but also 3D media such as the miniature cycle of hydrology and layers of the atmosphere. Teachers will find it easy to explain lessons if they are assisted by real media such as this 3D media. Students will also be able to easily record and depict in their memory the material related to the miniature cycle of hydrology and the layers of the atmosphere, especially geography which is closely related to hydrology and meteorology.

The Pengabdian Masyarakat team of the Department of Geography FIS UNP realizes that no matter how sophisticated and modern life is with the support of technology, it will not be able to replace the roles and functions of teachers in the classroom. Teachers who Sumatra Journal of Disaster, Geography and Geography Education, December, 2021. Vol.5, No. 2, pp. 126-130 Disaster, Geography, Geography Education http://sjdgge.ppj.unp.ac.id/index.php/Sjdgge ISSN : 2580 - 4030 (Print) 2580 - 1775 (Online), Indonesia

are liked by students are teachers who are not monotonous when conducting the lesson proper, in order to reach this condition teacher need to uses 3D media to make learning atmosphere becomes lively and fun for students. With such a strategic roles as a teacher, this training is important and necessary to be carried out continuously, both with the guidance of lecturers from universities and independently through their respective MGMP forums.

This Pengabdian Masyarakat for the Geography Department of FIS UNP has been carried out in two schools, SMA N 5 Pariaman and SMA N 1 Ulakan Tapakis, Padang Pariaman among others using PNBP UNP 2021 funds which in general have been carried out well. In its implementation, both teachers and students are very enthusiastic and happy with this kind of training. There are several important notes from the implementation of this service that put to concern by various parties. This was revealed from the interview with the training participants. Teachers and students are very enthusiastic about their participation in this training because they feel disheartened in making learning media. Teachers rarely use learning media during the teaching and learning process. Then this 3D media training requires time and energy in the making process. As a matter of fact, making this type of learning media is relatively easy and cost effective. So that it will not interfere with students in the teaching and learning process in class.

A professional teacher always tries to make the students understood the lessons by using simple but useful self-made learning media to support teachinglearning process

4. CONCLUSION

Participants in this activity were Geography teachers at SMA N 5 Pariaman and SMA N 1 Ulakan Tapakis, Padang Pariaman as well as 10 students from each school. This activity was carried out with limited participants in order to avoid the transmission of Covid-19 and the implementation had complied with health protocols by measuring body temperature before entering the classroom, washing hands using a hand sanitizer, and wearing masks. In accordance with the purpose of implementing this Pengabdian Masyarakat activity, after the implementation of the activity, it is expected that teachers and students have increased abilities in terms of assignments to create 3D media in the form of a cycle of hydrology model and layers of the atmosphere in learning geography. The advantage of this media, students can be directly be involved and engaged in the learning process. This media is also made with minimal costs so all of the students can make it. This introduction and training activity is expected to gave subject teachers desire to continue their training for 3 dimensional media. Teachers are advised to implementing Project based learning. With this ability, teachers are expected to design and used media in order to create quality and effective learning process.

5. ACKNOWLEDGEMENTS

First, we would like to relay our sincerest gratitudes to SMAN 5 Pariaman and SMAN 1 Ulakang Tapakis Headmasters, teachers, staff and all parties who help in conducting this activities.

6. **REFERENCES**

- [1] Pribadi,B.Model Desain Sistem Pembelajaran. Jakarta: PT Dian Rakyat. 2009
- [2] Sadiman, dkk. Media pendidikan. Jakarta : PT Raja Grafindo Persada. 2008
- [3] Sadiman, Arief S. dkk. Media pendidikan. PT Raja Grafindo Persada: Jakarta. 2009
- [4] Sudjana, Nana dan Ahmad Rivai. Media Pengajaran. Sinar Baru. Algensindo: Bandung. 2011
- [5] Chandra, D., Wilis, R., Frananda, H., Rahmi, L.,Wijayanto, B.,& Putra, A. Pembuatan Peta Timbul Sebagai Media Pembelajaran Geografi.PEDAGOGIA.Jurnal Pendidikan, 8(2), 211-221. 2019
- [6] Chandra, D., Wilis, R., Bekti, B., Rahmi, L.,Adhetya, D., Wijayanto, B., Prarikeslan, W., Mariya, S., Nova, S. & Ramadhan, R. The Making Of Solar Ststem As A One Of Geography Learning Media In SMAN 2 Batang Anai, Padang Pariaman Regency And SMAN 5 Bukittinggi, Bukittinggi City. Sumatra Journal Of Disaster, Geography and Geography Education, 3(2), 35-39. 2019
- [7] Prasetya, S.P. Media pembelajaran Geografi.Yogyakarta.Penerbit Ombak. 2015
- [8] Pribadi, B.A. Media dan Teknologi dalam Pembelajaran.Jakarta.Penerbit Kencana. 2017
- [9] Wati, E.R. Ragam Media Pembelajaran. Jakarta.Penerbit Kata Pena. 2016
- [10] Arsyad, A. Media Pembelajaran.Jakarta.PT Raja Grafindo Persada. 2010
- [11] Rohani, Ahmad. Media Intrusional Edukatif. Rineka Cipta : Jakarta. 1997
- [12] Rahmanelli, Meningkatkan Kecerdasan Spasial Mahasiswa Melalui Teknik Media Peta Puzzle dalam Pembelajaran Geografi Regional. Jurnal Pejuang Pendidikan. 3(3),313-316. 2017
- Putra, A. Penerapan Pembelajaran Kooperatif Model Grub Investigation Pada Mata Pelajaran IPS Geografi. Laporan Penelitian Tindakan Kelas. 2010