Development of Multimedia Wordwall-Free Intractive Learning Media in Geography Subjects

*Dawet Alraniri, Yurni Suasti, Ernawati

Master Program of Education Geography, Faculty of Social Science – Universitas Negeri Padang
*E-mail: dawetalranirihrp@gmail.com

ABSTRACT

This research is the development of learning media for geography based on multimedia word wall (website) which aims to develop learning media for geography which is monotonous to be interesting and so far it has only relied on textbooks which can make students bored every time they study in class. The development model used is the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation). The subject of this study was Senior High School (SHS) 1 Padangbolak Julu. The research population was students from SHS 1 Padangbolak Julu, the results of the validation test were the results of the assessment of the two validators. 3.68% "valid" with the validity category is in the interval ($2.5 \leq M \leq 3.5$), the percentage of teacher responses is 90.22% positive, the percentage of student responses is 98.6% positive, the teacher's ability to manage learning is 3.87 is in the criteria ($3.5 \leq KG < 4.5$) is very good, the percentage of student activity is 95.75% which is in the percentage interval ($80 \leq P \leq 100$) is very good, the value of student learning outcomes is categorized as high. Wordwall-based learning development media in the subject of Geography has effectiveness and practical validity and is suitable for use in the teaching process to students.

Keywords: Instructional Media, Geography, Word Wall, ADDIE Model, Validity and Effectiveness.

INTRODUCTION

Education is a critical need in human life. In the development aspect of a country, quality human resources are the cornerstone. Through quality and good knowledge, quality human resources will be formed and able to compete with other countries in the era of globalization. Therefore, education is an aspect that is highly considered in every country, especially Indonesia, and described in Law No. 20/2003 concerning the national education system, namely. The purpose of education is to bring students to changes in good behavior, morals, and society so that they can live independently as human beings. Educational goals will be achieved well if the collaboration between educators and students in the teaching and learning process goes well (Suasti et al., 2018).

Realizing that education has a very important role in the development of a nation, the government is trying to improve the quality of education through a quality learning process (Komalasari et al., 2020; Mehmood, 2021). Efforts that have been made include improving the curriculum, building infrastructure, using appropriate media, increasing the ability of educators, and using good learning strategies. Of the efforts that have been made to

improve the quality of education due to the causes of the low quality of learning, another cause of the low quality of learning is the teacher's learning process which is still monotonous. Therefore, in the process, an educator must be creative in the teaching and learning process so that the material presented can be understood by students and can present interesting material for students so that students feel comfortable and easily grasp the subject matter. One of the processes carried out by an educator in learning is how to be able to choose the right learning method. The development of information technology is one of the supports for developing learning innovation, especially in learning media (Salmiyanti et al., 2022). The method currently being developed is optimizing multimedia as a learning media tool.

The learning media used in each school are not the same as one another, so it is necessary to make observations first (Chandra et al., 2019). After making observations on the subject of geography at SHS 1 Padangbolak Julu, based on the observations of researchers the learning media used using a blackboard with verbal communication methods through the teacher's oral narrative so it is still not interesting. It is difficult to repeat the material given because it uses conventional media. Learning media based on interactive multimedia is still little used so the use of computers as learning aids is still not optimal. Based on the description above, it is necessary to conduct research and development. The research in question is developing interactive multimedia-based learning media with the research title "Development of Interactive Multimedia-Based Learning Media in Geography Subjects at SHS 1 Padangbolak Julu".

METHODS

The results of the development research carried out resulted in an interactive learning media product by going through various stages starting with product validation, then testing the practicality of the resulting media, and testing the effectiveness of using interactive learning media produced in class X SHS 1 students Padangbolak Julu North Sumatra. The research results are presented as follows.

3.1.1 Geography learning media validation test results

The results of the Validation Test assessment of multimedia-based interactive learning media in Geography subjects can be seen in Table 1 below.

Table 1. Learning media validation test results

No	Rated aspect	Value from validator		Average	Information
1	Learning media that has an attractive appearance	3	4	3,5	Very Valid
2	The components in the learning media are in accordance with the learning objectives	4	4	4	Very Valid

No	Rated aspect	Value from validator		Average	Information
3	The composition of the media displayed is appropriate in place	4	3	3,5	Very Valid
4	The media displayed is not boring	3	3	3	Valid
5	Medium color contrast is good	4	4	4	Very Valid
6	Easily visible to all students in the classroom	4	4	4	Very Valid
7	Easy for students to understand	4	3	3,5	Very Valid
8	The language used is easy to understand	4	4	4	Very Valid
	Total Average (M)			3,68	Valid

Based on Table 1 above, it can be seen that the average aspect that is assessed or the result of validating geography learning media from experts suggests that the average aspect of multimedia-based interactive geography learning media in geography subjects is 3.68. In the results of the validation test, the results of the assessment of the two validators were 3.68% "valid" with the validity category at an interval of $2.5 \leq M \leq 3.5$.

3.1.2 Results of teacher response questionnaire analysis

The results of the analysis of teacher responses to interactive geography learning media based on wordwall multimedia, the average percentage of teacher responses to interactive geography learning media based on wordwall multimedia has a value greater than 50%. Of all the aspects asked of the teacher, the percentage of the teacher's response was 90.22%, it was concluded that the response of SHS 1 Padangbolak Julu teachers to the interactive geography learning media based on multimedia word walls used was positive.

3.1.3 Results of analysis of questionnaire assessment of student responses

The results of the average percentage of responses of SHS 1 Padangbolak Julu to multimedia-based interactive learning media have a value greater than 50%. So from all the aspects asked, the percentage of student responses was 98.6%, and student responses to interactive Geography learning media based on multimedia word wall can be concluded that the Geography learning media used is positive.

3.1.4 Effectiveness data analysis results

Based on the results of the Learning Management Analysis at each meeting, there will be observations on learning management. This observation must be carried out to determine the level of effectiveness of the learning media that will be developed whether it has very good value and the teacher's ability to manage Geography learning outcomes using interactive learning media. The results of observations of learning management can be seen in Table 2 below.

Table 2. Results of teacher ability analysis in managing learning

Assessment Aspects	Meeting Average I-II	Information
Learning Activities		
Deliver apperception of the material provided	4	Very good
Delivering learning objectives and learning methods	3,75	Very good
Average	3,87	Very good
Core Activities		
Introducing learning media to students and asking problems related to learning media	4	Very good
Mengarahkan siswa untuk lebih fokus belajar	3,75	Very good
Motivate students to easily remember the lesson	4	Very good
Guiding students to do critical thinking about the lesson	3,75	Very good
Average	3,87	Very good
End Activities		
Give assignments related to learning media	3,75	Very good
Presenting the material to be studied at the next meeting	4	Very good
Average	3,87	Very good
Class Situation		
Students are enthusiastic in learning media in the learning process	4	Very good
Teachers are enthusiastic about using media in the learning process	3,75	Very good
Activities according to the scenario in the RPP	4	Very good
Average	3,91	Very good
Overall Average	3,90	Very good

Based on Table 2 above, the results of the data analysis on the teacher's ability to manage Geography learning using interactive learning media based on multimedia word wall. $\leq KG < 4.5$) which can be interpreted, namely the teacher's ability to manage geography learning using interactive learning media based on multimedia word wall is a very good category.

3.1.5 Results of observation analysis of student activities

The results of the analysis of observing student activity in the learning process can be seen in Table 3 below.

Table 3. Results of student activity analysis

Aspects of observation of student activity	Percentage of student activity	
	1	2
Students understand and observe the lessons in the media	96,5%	98,5%
Students remember lessons more quickly with this media	92,5%	95%
Students discuss answers to existing problems with their group mates	94,5%	97,5%
Students can work together on a problem	91.5%	96,5%
Students draw conclusions or summaries of the material that has been studied	95,5%	97,5%
Average Percentage	94,1%	97%
Overall Average Percentage	95,5%	

The results of the analysis after using the Interactive Geography learning media multimedia word wall obtained the results of the analysis of student activities with an average percentage of all meetings of 95.75% which was at a percentage interval of $80 \leq P \leq 100$. It can be interpreted that student activity is very good.

3.1.6 Results of learning outcomes test analysis

Based on the results of the analysis of student learning outcomes test scores at SHS 1 Padangbolak Julu after the learning process using interactive learning media based on multimedia word wall can be seen in the following Table 4 below.

Table 4. Frequency distribution and percentage of learning outcomes achievement scores

Score	Category	Frequency	Percentace
0-39	Very low	2	6%
40-59	Low	1	3%
60-74	Medium	3	9%
75-90	High	24	73%
91-100	Very high	3	9%

Based on Table 4, it can be seen that of the 33 students who took the learning outcomes test, some students were in the very low category at 6%. Students who are in the low category are 1%. Students who are in the medium category are 3% while students who are in the high category are around 73% and those who are in the highest category are at 9%. That is the conclusion of the table above that the average student score is high.

3.1.6 Discussions

The results of this study are the development of multimedia word wall-based learning media, it can be explained that a word wall is a media website that can be used as learning media materials such as games, guesswork, and others and can be arranged in geography learning media, making multimedia interactive learning media has gone through stages analysis, design, development, implementation, and evaluation.

- Analysis: This stage is resistant to identifying and looking for problems in the learning process in the classroom, in this problem, it is really necessary to find solutions so that learning media is not always boring. For students who have difficulty understanding or have difficulty remembering lessons, the development of multimedia word wall-based learning media can help students have difficulty remembering lessons. By making students active and liking the way they learn, students will easily understand and remember the subjects that have been conveyed by the media. This is the opinion of Wicaksono (2016) that the role of the media is very important in the learning process so that the material presented by the teacher arrives quickly and is easily accepted by students.
- Design: This stage is the design of the stages of the learning process, designing learning media, and evaluating learning media. The design stages of the learning media process

are taken from the class X work module and developed with multimedia-based media about basic knowledge of geography, and this design will involve several expert geography teachers and typist teachers as well as students.

– Development**:** The development stage is the creation of interactive learning media based on word wall multimedia by carrying out the validation stages so that the validity of the media can be implemented for these students, making media for the basics of geography is called being made with the help of the world wall website on the word wall website researchers can design game-based learning media, quizzes, word matching, random words on word wall. after opening the website we can choose the media we will make, researchers make quizzes and games that present the basics of geography. based on the validator results the average of all aspects is valid.

– Implementation**:** The implementation phase was carried out at SHS 1 Padangbolak Julu in class X, while the learning media was implemented involving 33 students in the class. In the first stage the researcher acted as an observer in the continuity of the teaching process in the class, and on the second day I asked the researcher to ask permission to implement this multimedia-based learning media in the classroom. when studying with this media students are very active and focused on the media because the media is like a guessing game so students don't get bored.

– Evaluation**:** The evaluation stage was carried out to test the practicality and effectiveness of learning media for the basics of geography. The practicality of learning media can be seen in the teacher's response questionnaire and student response questionnaire. It can be seen that the results of the teacher's response questionnaire to this learning media are positive, while in effectiveness it can be seen from the results of the student's questionnaire that it is very good. This is to the opinion (Arsyad, 2015) stating that "the more sensory organs used to receive and process information, the greater the information is understood and can be retained in memory".

CONCLUSIONS

The development of interactive geography learning media based on multimedia word wall on the basic material of geography knowledge, developed using the ADDIE Model method is an acronym for the five stages of the development process namely analysis, design, development, implementation, and finally evaluation. ADDIE is very based on each stage carried out in that sequence, even so, the focus of the model will be reflection and iteration (repetition) managing learning media, student activities are also assessed to see the development of students who are starting to be active and student learning outcomes. word wall-based learning media in Geography subjects have effectiveness and practical validity and are appropriate for use in the teaching process to students.

REFERENCES

Arsyad, N. (2015). Integration between East and Southeast Asian equity markets. Journal of Financial Economic Policy, 7(2), 104-121.

Chandra, D., Wilis, R., Frananda, H., Rahmi, L., Arif, D. A., Wijayanto, B., & Putra, A. (2019). Pembuatan Peta Timbul Sebagai Media Pembelajaran Geografi. PEDAGOGIA: Jurnal Pendidikan, 8(2), 211-221.

Kim, S., Kim, J., & Choi, J. (2020). Development and application of a forest education program using the ADDIE model. Journal of forest and environmental science, 36(3), 243-254.

Komalasari, K., Arafat, Y., & Mulyadi, M. (2020). Principal's management competencies in improving the quality of education. Journal of social work and Science Education, 1(2), 181-193.

Najuah, N., Sidiq, R., & Lukitoyo, P. S. (2021). The development electronic module of history using ADDIE model. International Journal of Educational Research & Social Sciences, 2(6), 1658-1663.

Mehmood, U. (2021). Contribution of renewable energy towards environmental quality: The role of education to achieve sustainable development goals in G11 countries. Renewable Energy, 178, 600-607.

Prasetyo, D., Wibawa, B., & Musnir, D. N. (2020). Development of mobile learning-based learning model in higher education using the addie method. Journal of Computational and Theoretical Nanoscience, 17(2-3), 911-917.

Salmiyanti, S., Darmansyah, D., & Desyandri, D. (2022). Peran Media Pembelajaran Berbasis Teknologi Informasi Dan Komunikasi Di Sekolah Dasar. Jurnal Pendidikan dan Konseling (JPDK), 4(6), 11424-11429.

Suasti, Y., Barlian, E., Muchtar, B., Syah, N., & Putra, A. (2018). Insert Religious Model in the Construction Character of Care for the Environment to the Study of Geography in Padang City–Indonesia. Journal of Islamic Studies and Culture, 6(1), 67-70.

Wicaksono, A. J. (2016). A proposed method for predicting US presidential election by analyzing sentiment in social media. In 2016 2nd international conference on science in information technology (ICSITech) (pp. 276-280).