


# Geo Talk Media: Microlearning-Based Innovative Learning Media To Foster Student Interest In Natural Resources Material At The South Malang Nature Laboratory

Ihdina Rifkanisa Maharani<sup>1</sup>, Alfi Sahrina<sup>1</sup>, Muhammad Rafif Fadihilah<sup>1</sup>, Mohammad Yusril Abidin<sup>1</sup>, Ho Nhu Ngoc<sup>2</sup>

<sup>1</sup>Geography Education, Universitas Negeri Malang, Jl. Semarang, Malang, Indonesia

<sup>2</sup>Faculty of Cultural Industry, Thu Dau Mot University, Vietnam

ARTICLE INFO	ABSTRACT
<p><b>Article History:</b>                      Received: 2024-07-30                      Accepted: 2024-09-16                      Published: 2024-09-30</p> <p><b>Keywords:</b>                      Innovative Learning; Learning Media; Microlearning</p> <p><b>Corresponding author:</b>                      Alfi Sahrina                      Email: <a href="mailto:alfi.sahrina.fis@um.ac.id">alfi.sahrina.fis@um.ac.id</a>                      DOI: 10.37905/jgej.v5i2.26909</p> <p>Copyright © 2024 The Authors</p>  <p>This open access article is distributed under a Creative Commons Attribution-NonCommercial (CC-BY-NC) 4.0 International License</p>	<p>One of the innovative learning media that can be applied is learning video. Geo Talk Media is an innovation in education that combines the microlearning approach with multimedia technology by utilising natural resources as a laboratory in South Malang. This research aims to produce microlearning-based video learning media. The main focus of this platform is to foster student learning interest in Natural Resources material, especially those in South Malang. The type of research used is Research and Development (RnD), using the ADDIE development model. The instrument used is an open questionnaire with qualitative descriptive data analysis and a closed questionnaire with quantitative descriptive data analysis. The research subjects were geography teachers and students of class X SMAN 1 Kepanjen. The results showed that the microlearning approach of Geo Talk learning video media can foster student learning interest in natural resources material in the South Malang laboratory. Proven by the percentage level of 87.12% with very feasible criteria. This research is important because it can overcome the problems that are often found, namely the limited focus of students in understanding the material provided, so that the advantages of this media are effective in helping facilitate student understanding of the material taught with a microlearning approach, and can provide new experiences for students.</p>

**How to cite:** Maharani, I. R., Sahrina, A., Fadihilah, M. R., Abidin, M. Y., & Ngoc, H. N. (2024). Geo Talk Media: Microlearning-Based Innovative Learning Media To Foster Student Interest In Natural Resources Material At The South Malang Nature Laboratory. *Jambura Geo Education Journal*, 5(2), 115–126. <https://doi.org/10.37905/jgej.v5i2.26909>.

## 1. Introduction

Learning innovation is seen as a renewal in the learning system, with this can also be said as part of educational innovation. Learning innovation is considered important in achieving learning objectives, with learning innovation it is expected that the learning and teaching process can run smoothly, conducive to fostering critical and creative thinking, such as skills in 21st century learning. Learning innovation embodies the learning process in students that is designed, developed, and managed creatively and applies various approaches in a better direction so as to create an atmosphere and learning process that is conducive to students (Hapsari & Fatimah, 2021). Learning innovation aims to realise a quality learning process so as to improve the competence, abilities, skills, and competitiveness of graduates (Asefer & Abidin, 2021) To achieve this goal, innovative learning is needed. The learning process is very complex, including media as an intermediary in conveying information in the learning process. Learning media is a tool used to convey information that comes from a trusted source where educators provide this information to students so that it can facilitate the learning process (Haryadi et al., 2021)

The learning process that is not accompanied by interesting learning media will make students bored and bored with the learning process in the classroom, so innovative learning media is needed. Innovative learning media was chosen to be the focus of research because it has an important role in learning today. Innovative learning media is considered as a form of learning media development that is used to provide a more interesting and interactive learning experience for students (Saripudin et al., 2021) Innovative learning media is very important in increasing student interest and motivation to learn so that it needs to be developed as a more effective learning tool (Charline et al., 2023) Therefore, innovative learning media is everything that is used in order to convey the purpose / content of learning material by using / utilising products based on new ideas / things to solve learning problems (Novaliendry et al., 2020)

Learning videos themselves are included in audio visual digital media (Dwi & Juhadi, 2020) Audio-visual media can make it easier for students to obtain knowledge that is outside the classroom into the classroom

clearly ([Agustin et al., 2024](#)). Learning videos as one of the innovative learning media that can be applied, this is because learning videos are able to provide students with more interesting and interactive learning so that it is expected to facilitate students in understanding the material. This is similar to what happens in the field, based on the results of the needs analysis conducted by researchers on class X students of SMAN 1 Kepanjen, it is known that 66.7% of 33 students are interested in audio-visual type media and followed by 90.9% interested in clear and concise video learning media because it can help understand the material. This incident is also supported by the statement ([Lu & Hanim, 2024](#)) that learning videos have the advantage of presenting concepts visually and tangibly. It also looks more interesting and tends not to be boring. Learning videos can detail learning in a structured and organised manner, clearly illustrating procedures or steps ([Darma et al., 2019](#)).

Based on the results of interviews conducted by researchers with teachers of SMAN 1 Kepanjen, teachers experience constraints in the form of limited time and space in carrying out learning in the real environment for natural resources material. Microlearning-based video learning media is considered very effective and can support students' abilities well and critically ([Ayu et al., 2023](#)) The form of media that was commonly used before was power point, with this media students have limitations in interactivity with the material presented, and also tends to have the potential to cause boredom so that it requires innovative media and is packaged in a short time. This fact is in line with what was said by ([Ilham et al., 2023](#)) that students prefer media that is short, clear, and concise.

The limited focus of students in understanding the material is a problem that is often found, therefore students need learning media that can help in learning activities. Microlearning is one approach that is considered suitable in dealing with this problem. Microlearning is an approach in organising the content of the material into small focused and brief parts. Geography subject content, especially in the field of natural resource studies, needs to be developed and packaged digitally according to the learning needs of today's students. With the microlearning approach according to ([Iriawan et al., 2022](#)), it can contain various elements (text, audio, video, animation, and infographics), contain only important material in a few pages, thus allowing students to learn in a relatively short duration of time, and allowing students to learn anytime and anywhere. The application of microlearning in learning will also motivate students to learn quickly and hone creativity skills ([Sirwan Mohammed et al., 2018](#)). Learning using the microlearning approach is packaged in material content into certain parts with the hope that students will more easily understand and remember for a longer time with learning in a short time, which is approximately ten minutes.

Based on the results of previous research, it is stated that the development of video media integrated with microlearning can produce audio-visual media that is short in duration but can still contain material according to learning ([Rasman et al., 2021](#)). In addition, other studies have also shown that the use of learning videos can increase student independence in learning ([Nuritha & Tsurayya, 2021](#)). The making of audio-visual media in the form of videos that have been developed previously, has not paid attention to aspects of duration, image and sound clarity. So that researchers see the urgency that can be raised from previous findings, namely related to time efficiency, as well as increasing learning retention that can display learning in small pieces that are easy to digest. Microlearning videos help reinforce key concepts effectively ([Sugunan, 2023](#)). The delivery of specific material can also be a gap of discussion (Gap Research) for researchers in the form of utilising learning videos with a Microlearning approach on Natural Resources material.

The difference between this research and previous research is the combination of learning videos with a microlearning approach which aims to produce short but specific video media, and there is a vertical display to facilitate use with mobile devices, besides the importance of ensuring information that is appropriate and relevant to learning materials, material content will be presented contextually, so as to significantly increase understanding and involvement in various aspects of daily life ([Budiman et al., 2020](#)). This research aims to create an innovative and effective microlearning-based learning media, with a focus on improving retention and understanding of the material through the delivery of information in small chunks that are digested easily. This learning media is designed to be easily accessed and used by students, so they can learn flexibly according to their schedule and needs ([Alfiansyah, 2024](#)).

## 2. Method

### 2.1. Research Design

This type of research is a type of Research and Development (RnD) research. This research uses the ADDIE development model (Analyze, Design, Development, Implementation, Evaluation). The choice of model used is based on sequential but interactive stages ([Alfan et al., 2021](#)). The method in this study uses mixed methods, with qualitative descriptive data analysis for open questionnaire research instruments and quantitative

descriptive data analysis for closed questionnaire research instruments. This refers to media validation, media validation has a pening role in the development of a product, as said by (Hapsari, & Zulherman, 2021) that media validation is a process for assessing product design by experienced experts, the aim is to create innovative and effective microlearning-based learning media, with a focus on increasing retention and understanding of material through delivering information in small pieces that are easy to digest. so that it can foster student interest in learning material. So that it can foster student interest in learning SDA material.

## 2.2 Research Procedure

The use of the ADDIE model in research is due to the advantages of this model, namely in the form of complex guidelines so that it will be appropriate in developing products in the form of media in learning (Adeoye et al., 2024). There are 5 stages in the development of ADDIE, and each stage has its own purpose, including: Analyze to identify needs and set more specific goals for the media to be developed, Design is used to design the structure and format of the media based on the results of the analysis (Effing & Spil, 2016). Development aims to produce media based on the design that has been compiled. Implementation is done to disseminate and apply the media to students to ensure that the media can be accessed and used effectively by students. Finally, evaluation aims to assess the effectiveness and impact of the media that has been developed (Gui et al., 2023). The following is the stage of the research procedure presented in the [Table. 1](#).

**Table 1.** Stage of Research Procedure

Stage	Description
<i>Analyze</i>	<ul style="list-style-type: none"> <li>Needs analysis based on the characteristics of SMA Negeri 1 Kepanjen class X students</li> <li>Needs analysis based on existing media</li> <li>Interview one of the Geography teachers of SMA Negeri 1 Kepanjen</li> <li>Analysis of curriculum and characteristics of natural resources material</li> <li>Analysis of commonly used media / similar media that have existed before</li> </ul>
<i>Design</i>	<ul style="list-style-type: none"> <li>The design of the storyboard, including the script/narrative, video display and media material (content) is compiled with reference to the information obtained at the analysis stage..</li> </ul>
<i>Development</i>	<ul style="list-style-type: none"> <li>Make or design products according to design, concept, material content and also needs analysis</li> <li>Validating the product aimed at expert evaluators, namely media experts and material experts.</li> </ul>
<i>Implementation</i>	<ul style="list-style-type: none"> <li>Conducting product trials of learning video media into valid learning activities for students.</li> <li>Distribute response questionnaires to students and geography teachers on learning.</li> </ul>
<i>Evaluation</i>	<ul style="list-style-type: none"> <li>Make improvements at each stage to be applied at the next stage</li> </ul>

**Source:** Author's own work (2024)

## 2.3 Data Collection and Analysis

This research was conducted at SMAN 1 Kepanjen with the research subjects as many as 33 grade X students and teachers of SMAN 1 Kepanjen. The number of 33 samples was chosen because 10th grade students have a relatively homogeneous level of knowledge and development, so this number is sufficient to see variations and relevant patterns. Researchers used qualitative and quantitative data with data collection methods using open and closed questionnaires distributed to media expert validators, material expert validators and media response questionnaires to students and teachers. The purpose of this material validation is to determine the accuracy and suitability of the learning material contained in the learning media whether it is in accordance with the learning needs (Alsyaabri, 2021). The instrument used in this study is an instrument developed by researchers and has gone through a valid process with a display in the form of visual, audio, material, benefits and usage aspects, To identify the feasibility of Geo Talk Media learning media, researchers use a Likert scale as the basis for filling out questionnaires, the likert scale table can be seen in [Table 2](#).

**Table 2.** Likert scale of validators and research subjects

No	Score	Assessment
1	4	Strongly Agree/ Highly Appropriate
2	3	Agreed/ Appropriate
3	2	Disagree/ Inappropriate
4	1	Strongly Disagree/ Strongly Disagree

Source: (Sugiyono, 2016)

Serves to find out how the validity and also the responses given by the research subjects regarding the media developed. The score contained in the Likert Scale is used to describe the response data to each point on the material indicators and the usefulness of the media. The qualifications of validity and responses to the media are presented in [Table 3](#).

**Table 3.** Eligibility Qualification

No	Percentage(%)	Qualification	Description
1	81-100	Highly Valid/ Highly Feasible	Usable, without revision
2	61-80	Valid/ Appropriate	Usable, minor revision
3	41-60	Quite Valid/ Quite Feasible	Usable, needs revision
4	21-40	Less Valid/ Less Feasible	Usable, needs revision
5	0-20	Invalid/ Inappropriate	Not usable, total revision

Source: (Sugiyono, 2016)

The data analyzed by the validators and the responses of the research subjects will then be converted into a percentage using the following [formula \(i\)](#)

$$\text{Percentage of respondents answer} = \frac{\text{Total score obtained}}{\text{highest number of scores}} \times 100 \quad (\text{i})$$

### 3. Results and Discussion

#### 3.1. Design of Geo Talk Media: Innovative Learning Media Based On Microlearning At South Malang Nature Laboratory

Geo Talk Media (GTM) comes as a new innovation that can complement previous research on the weaknesses of the research study, which lies in the results of videos that are still simple with a conventional format, similar to videos in general, and have not paid attention to the duration aspect, so they still have a relatively long duration, which is more than 15 minutes, besides that the sound is less audible and video impressions are less clear, Geo Talk Media offers solutions with a more modern and efficient format, by paying attention to aspects of a more concise duration and improving the quality of sound and images. GTM is a platform, containing videos that can be used as learning media by raising the material of Natural Resources, especially in the South Malang area. This finding is expected to foster student interest in natural resources material and can make it easier for students to understand the material presented by the teacher, using a microlearning approach that can break down the material into small pieces that are easy to digest. Each video is designed to be short, focused, and to the point. Using a shorter duration, we can more easily understand and remember important information without feeling overwhelmed. Researchers took a material study on physical natural resources found in the South Malang Nature Laboratory, examples of these resources include minerals, rocks, air, water, and soil.

The process of developing this media is carried out using the ADDIE development model, after conducting a needs analysis, including analysis of student character needs, existing media, curriculum, and commonly used media, then the next process is planning (Design). The design stage in this study is needed in designing the media as a whole and also designing activities for using the media during learning. This is in line with research from (Solihatini et al., 2021) which indicates the importance of the design stage as the first step in the design of making learning media. The first step taken in this stage is the creation of a storyboard. Storyboard contains a collection of narrative descriptions of each scene in each video scene, which serves to ensure that each scene can convey the desired message clearly and effectively. Research conducted by (Rahayu et al., 2022) also revealed that the storyboard that has been designed is used as a guide in the media creation process. One example of a storyboard can be seen in [Figure 1](#).

**STORYBOARD**  
**BLUE SPRING WATER LEARNING VIDEO SCENARIO**

Location: Sendang Biru spring

Duration: 3 Minutes +

Cast: 1 Person

Cameraman: 2 people

No.	Topic	Narrative	Background	Scenes	Duration
1.	Opening Video	None		Showing the appearance of blue spring water	30 Seconds
2.	Explanation of the beginning of spring water	<p>“The emergence of springs from the surface is common in karst landscapes, such as those in Sumbermanjing Wetan Sub-district. The emergence of springs can occur from the control of geological structures. One of the springs that can be found in Sumbermanjing Wetan Sub-district is Sendangbiru Spring.</p> <p>“Sendangbiru Spring is one of 36 springs found in the Sendang Biru karst area”</p> <p>“The emergence of Sendang Biru spring comes from the presence of carbonate rock cracks and the emergence of springs from the cave passage. Water seepage then appears on the hills during the rainy season and stops flowing during the dry season.”</p>	NCS	Shows the presenter giving an explanation about water sources	40 Seconds

**Figure 1.** One of Geo Talk Media's storyboards

Geo Talk Media (GTM) presents information about natural resources directly through real visuals in the field. The information presented includes the existence of resources, the process of formation, management, and maintenance. In addition, there are also practicum activities. The use of Geo Talk Media videos in learning is very easy and practical. Students can access the videos through the Google Drive link provided by the teacher. In the link there are several GTM videos that discuss natural resources, especially in the South Malang area, which can be downloaded and used either with or without the internet. Teachers can adjust the use of GTM videos to the Natural Resources material that will be taught in class. GTM is designed with a very simple design so that it is easily accessible to all groups, both teachers and students, anywhere and anytime and is not obsolete by time. Media design plays an important role in ensuring that each visual and audio element works harmoniously to convey the message that the researcher wants. Geo Talk Media presents a variety of learning videos that specifically highlight the wealth of natural resources in the South Malang region. With engaging visuals and informative narratives, these videos are designed to provide an in-depth understanding of the natural potential of the area, ranging from biodiversity, minerals, to the economic potential of local resources. As can be seen in [Figure 2](#).



**Figure 2.** Explanation of spring water sendang biru

Geo Talk Media not only provides information, but also promotes awareness of the importance of environmental conservation and sustainable use of natural resources. Another example display on the GTM video can be seen in figure 3. This finding shows that the use of GTM, packaged with a microlearning approach, as a learning tool has a positive impact on students' understanding, especially in recognising and appreciating the natural resources around them. This is needed as a first step towards more contextualised learning based on local potential, which is expected to foster a sense of love and responsibility for the environment from an early age. In this stage of the development process (Development), learning videos are made using the Adobe Premier pro CC 2019 application by utilising the tools in it that can support the video

making process. According to (Zaini & Nugraha, 2020) Adobe premiere is a video editing application used to produce audio visual media. The first thing to do, researchers visited the location that was used as the object of research, namely the South Malang natural laboratory, the activities carried out took pictures and videos according to the storyboard that had been made before. The camera used in taking pictures and videos is a Sony A6000 with a mirrorless camera type. In this development process, voice over activities were also carried out or recording of pre-made narratives as audio in explaining information and material on Geo Talk Media learning videos. In addition, this video is also equipped with sound effects to further enliven the atmosphere in the learning video. After all images, videos, voice over and sound effects are obtained, the next is the management process with the help of Adobe Premier pro software.



**Figure 3.** Explanation of the sitiarjo valley

### 3.2. Expert Validation Results

After the learning media product has been developed, to determine the feasibility of a product produced, researchers conduct expert validation consisting of media experts and material experts. This aims to assess the feasibility of a learning media product and find out the weaknesses of the learning media, so that later improvements can be made. Validation is carried out by providing product assessments based on the references/aspects/indicators contained in the validation instrument by expert validators (Qonita & Rachmadyanti, 2018). The presentation of the validation results and also responses from experts on learning media can be seen in Table 4.

**Table 4.** Media and Material Validation Results

MEDIA			MATERIAL		
Aspects	Indicator	Average Percentage	Aspects	Indicator	Average Percentage
<b>Linguistics</b>	Language Usage.	100%	<b>Linguistics</b>	Language Usage.	100%
<b>Visual Display</b>	Appropriateness of dubbing and visualization	85%		Sentence writing	
	Image quality		<b>Material</b>	Correctness of concept	92,85%
	Image display			Clarity of information delivery	
	Typeface (font)			Clarity of concept and definition material	
	Text display (writing)			Appropriateness of using videos and images with the material	
<b>Audio Display</b>	Intonation used during dubbing	83,33%		Suitability of the material with the applicable curriculum	
	Accuracy between voice and text			The order of the material presented	
	Bakcsound suitability			The suitability of the material with CP, and ATP	

<b>Benefits</b>	Learning videos can increase student learning motivation	100%	<b>Learning</b>	Depth of material	95%
	Learning videos can help teachers in delivering learning materials			Contextuality of content	
	Learning videos are effective for individual use			Providing feedback	
	Suitability of learning videos with independent curriculum			Interactive communication	
	Learning videos can be used on an ongoing basis			The effect of media on students	
<b>Usage</b>	Learning videos can be used for independent learning	100%	<b>Benefits</b>	Learning videos are easy to understand (increase motivation)	100%
	Learning videos can be used anywhere				
	Learning videos can be used anytime				
<b>Overall Average</b>	<b>92.64% (Highly Valid)</b>		<b>Overall Average</b>	<b>95% (Highly Valid)</b>	

Source: Research Primary Data, 2024

Media Expert Validation. This media validation was carried out by Geography Lecturers at State University of Malang who have qualifications in the field of media, to assess the feasibility of media on this video learning media. Based on the results of the average percentage of media validation as a whole, it shows the qualification of 'Very Valid' with an average of 92.64%. Then the media expert validator also provided comments and suggestions, namely that the media needs to be added briefly and clearly, for this reason it is necessary to make revisions after going through the assessment stage. Similar things were also found from research conducted by (Oonita & Rachmadyanti, 2018) revealing that improvements or revisions were made after getting suggestions given by material validators and media validators regarding several components.

Material Expert Validation. This material validation was carried out by Geography Lecturers at State University of Malang who have expertise in the field of environment, to assess the feasibility of material on this video learning media. Based on the results of the average percentage of material validation as a whole, it shows the qualification of 'Very Valid' with an average of 95%. Then the material expert validator also provided comments and suggestions, namely making an introductory video to add material to make it more in-depth. This is supported by a statement from (Akbar, 2023) that material validation is a crucial step in the media product development process that ensures that the final product is effective, high quality, and meets the needs and expectations of students.

### 3.3. Product Trial Results

After conducting the validation stage, the next process is testing (Implementation). The implementation stage is carried out with trial activities carried out by the teacher and 33 students of class X Sman 1 Kepanjen. This is done to determine the response or response of the research subjects to the media developed (Setiawati et al., 2019) and can be used in further research.

Teacher trial. This trial was conducted by the Geography teacher of class X. The results of the teacher trial can be seen in Table 5.

Table 5. Teacher Test Results

Aspects	Indicator	No. Item	Average Percentage	Qualification
<b>Usability</b>	By using this learning video, it makes you more excited for learning	2	100%	<b>Highly Feasible</b>
	The subject matter in the video is easy to understand	7		
	This learning video makes it easier for you to deliver the material	9		

Aspects	Indicator	No. Item	Average Percentage	Qualification
	This learning media is in accordance with the development of 21st century technology in the TPACK approach	10		
<b>Practicality</b>	This learning video is very easy to access	11	100%	<b>Highly Feasible</b>
	This learning video is interesting overall	12		
<b>Presentation</b>	Are you interested in learning videos?	1	95%	<b>Highly Feasible</b>
	The sound quality in the learning video is clear and easy to understand.	3		
	The image quality in the learning video is clear and crisp	5		
	Clarity of subject matter in the learning video	6		
	This learning video is suitable for use on natural resources material	8		
<b>Linguistics</b>	The use of language in learning videos is easy to understand	4	100%	<b>Highly Feasible</b>
<b>Average</b>			<b>97,91%</b>	<b>Highly Feasible</b>

Source: Research Primary Data, 2024

Based on the results of the assessment conducted by the teacher on this learning media, overall it shows the "Very Feasible" category with an average value of 97.91%. So it is said that the microlearning-based Geo Talk Media learning video media is suitable for use.

Student Trial. After passing the validation stage and testing by teachers, researchers also asked students to test the media, to find out the user's response or response, namely students to Geo Talk Media learning media. Table 6. shows the results of the student response questionnaire.

Table 6. Student Trial Results

Aspects	Indicator	No. Item	Average Percentage	Qualification
<b>Usability</b>	By using this learning video, it makes you more eager to follow the lesson	2	88,63%	<b>Highly Feasible</b>
	By using this learning video, it makes it easier for you to understand the material.	6		
	You gained new knowledge after watching this learning video	7		
	After watching the learning video, you feel that it adds insight and increases your learning motivation	8		
<b>Practicality</b>	This learning video is very easy to access	10	87,87%	<b>Highly Feasible</b>
	This learning video is interesting overall	11		
<b>Presentation</b>	Are you interested in learning videos?	1	84,84%	<b>Highly Feasible</b>
	The sound quality in the learning video is clear and easy to understand.	3		
	The image quality in the learning video is clear and crisp	5		
	You feel satisfied after watching this learning video	9		
<b>Linguistics</b>	The use of language in learning videos is easy to understand	4	88,63%	<b>Highly Feasible</b>
<b>Average</b>			<b>87,12%</b>	<b>Highly Feasible</b>

Source: Research Primary Data, 2024




Based on the results of student responses above, it shows that Geo Talk Media learning media is "Very Feasible" with a score of 87.12%. This proves that Geo Talk Media learning videos can be used in the learning process. This media has a design that is liked by both teachers and students starting from the aspects of presentation, usefulness, practicality and use of language so that it can attract students' attention, this is in line



with what is said by (Widianto, 2021) that good learning media is learning media that can attract students' attention.

After validation by the validators, the results and suggestions for improvement are obtained, these suggestions are given to complete the shortcomings of the product being developed, in order to produce a better product, such as this Geo Talk Media learning video can be added an introduction to natural resource material, to provide a basic understanding of natural resources which will then be discussed in detail regarding the potential that exists, especially natural resources in the South Malang Laboratory, this is intended so that students will be able to understand the material more deeply without feeling bored in a communicative way in the learning video. In addition, this media also needs to be given a brief and clear description of several scenes in the video so that it can restore student focus when they start to feel bored. So that students can understand the material with the help of video media shared by educators (Aguilera & Casa, 2014). The results of the improvements that have been made can be seen in Table 7.

**Table 7. Product Revision**

Before Improvement	After Improvement	Description
		<p>Improvements to the video display, there is a description of what is done in the video, in accordance with the suggestions given</p>
<p><b>There is no introductory video on natural resources</b></p>		<p>Improvement, adding an introductory video on natural resources for a deeper understanding.</p>

Source: Author's own work (2024)

Research results (Moreno-Guerrero et al., 2020) state that learning videos can be used as a learning resource and as a learning innovation for students and teachers. Learning videos make students eager to learn. Learning becomes fun because of interesting animations or images, students also easily understand the material with learning videos (Ilsa et al., 2020). This research is a new step in learning, can be applied both face-to-face (offline) and virtually (online), following the flow of increasingly sophisticated technological developments. This is also in line with the rapid development of science and technology. The results of advances in science and technology have proven to make a significant contribution in enriching the learning experience, in accordance with the needs of an increasingly modern and dynamic era (Mhlongo et al., 2023).

The last stage in this development process is evaluation. At this stage, Geo Talk Media learning media produces several advantages and disadvantages. The advantages of this video are able to foster student interest and motivation to learn, effective in helping facilitate student understanding of the material taught, can be replayed on the desired material, and provide new experiences where students can gain knowledge from outside the classroom into the classroom clearly. While the shortcomings contained in this media are the lack of study case questions or student feedback activities that can build more critical thinking skills of students.

#### 4. Conclusion

Innovative learning media Geo Talk Media based on microlearning at the South Malang Nature Laboratory can foster a sense of student interest and help teachers in the process of delivering material, so it is feasible to use in the learning process. This is evidenced by the trials conducted to teachers showing a percentage of 97.91% and trials to students showing a percentage of 87.12% with very feasible criteria. In addition, it is also proven by the validity test conducted by validators which shows a percentage of 95% by material experts and

92.64% by media experts. The shortcomings in this study can be an opportunity for future researchers to further develop new learning media, researchers can add case study questions that can foster students' critical thinking skills. Geo Talk Media is considered important in contributing to the world of education, especially in providing learning materials that are not only educational but also relevant to the geographical conditions and natural resources in South Malang. This suggests that learning media developed by considering the local context can be more effective in connecting learning materials with students' daily lives. This concept has important implications for media development in various parts of the world, where materials that are appropriate to the local context can improve the understanding and relevance of learning.

## 5. Acknowledgments

The author would like to thank the Undergraduate Geography Education Study Program, Faculty of Social Sciences, State University of Malang, and SMA Negeri 1 Kepanjen for their support in completing this research. The author also would like to thank all parties who have supported until this article was completed.

## References

- Adeoye, M. A., Adrian, K., Indra, S., Satya, M. S., & Septiarini, N. I. (2024). *Revolutionizing Education : Unleashing The Power Of The ADDIE Model For Effective Teaching And Learning*. *Jurnal pendidikan Indonesia*, 13(1), 202–209. <https://doi.org/10.23887/jpiundiksha.v13i1.68624>
- Aguilera, J., Casa, J. De., Domingo-Garcia, B., & Ramirez-Torres, M. (2014). Computers & Education Video-Sharing Educational Tool Applied To The Teaching In Renewable Energy Subjects. *Computers & Education*, 73, 160–177. <https://doi.org/10.1016/j.compedu.2013.12.014>
- Agustin, D., Marleni, & Riyanti, H. (2024). The Influence Of Audio Visual Media On Students' Learning Interest To Improve Their Learning Outcomes. *Esteem Journal Of English Education Study Programme*, 7(2), 348–362. <https://doi.org/10.31851/esteem.v7i2.14166>
- Akbar, E. B. (2023). *Pengembangan Media Pembelajaran Berbasis Aplikasi Menggunakan Smart App Creator Pada Materi Matematika Bangun Datar Kelas III Sekolah Dasar (Development Of Application-Based Learning Media Using Smart App Creator On Flat-Built Mathematics Material For Class Iii Primary School)*. *Seminar Nasional PGSD UNIKAMA*, 7(1), 45–54. <https://conference.unikama.ac.id/artikel/index.php/pgsd/article/view/828/688>
- Alfan, M., Khasairi, M., Nurhidayati, N., & Maziyah, L. (2021). Interactive Android Based Learning Media Sebagai Inovasi Pembelajaran Membaca Bahasa Arab Di Perguruan Tinggi: Desain Pengembangan Rekursif, Reflektif, Dan Kolaboratif (Interactive Android Based Learning Media as an Innovation in Arabic Reading Learning in Higher Education: A Recursive, Reflective, and Collaborative Development Design). *Jurnal Pendidikan: Teori, Penelitian, Dan Pengembangan*, 5(10), 1435-1445. <https://doi.org/10.17977/jptpp.v5i10.14112>
- Alfiansyah, A. (2024). Perancangan Dan Implementasi Media Pembelajaran Teknologi Layanan Jaringan Berbasis Mobile: Sebuah Pendekatan Inovatif Untuk Pendidikan (Design and Implementation of Mobile-based Network Service Technology Learning Media: An Innovative Approach to Education). *Journal Creativity*, 2(1), 121–132. <https://doi.org/10.62288/Creativity.V2i1.13>
- Alsabri, A. W. (2021). Validitas Dan Efektivitas Media Pembelajaran Berbasis Android Mata Pelajaran Komputer Dan Jaringan Dasar (Validity and Effectiveness of Android-Based Learning Media for Basic Computer and Network Subjects). *Journal Of Education Informatic Technology And Science*, 3(1), 1–10. <https://doi.org/10.37859/Jeits.V3i1.2602>
- Asefer, A., & Abidin, Z. (2021). Soft Skills And Graduates ' Employability In The 21st Century From Employers ' Perspectives : A Review Of Literature. *International Journal Of Infrastructure Research And Management*, 9(2), 44–59. [https://iukl.edu.my/rmc/wp-content/uploads/sites/4/2022/02/5.-AI-Asefer\\_compressed.pdf](https://iukl.edu.my/rmc/wp-content/uploads/sites/4/2022/02/5.-AI-Asefer_compressed.pdf)
- Ayu, I. G., Sintya, P., Astawan, I. G., Antara, P. A. (2023). Pengembangan Media Pembelajaran Audio Visual Berbasis Pendekatan Saintifik Materi Sistem Pernapasan Manusia Muatan Pelajaran IPA Kelas V (Development of Audio Visual Learning Media Based on the Scientific Approach to Human Respiratory System Material for Grade V Science Subjects). *INNOVATIVE: Journal Of Social Science Research*, 3(2), 11986–12000. <https://doi.org/10.31004/innovative.v3i2.1643>
- Budiman, A., Samani, M., Rusijono, R., Setyawan, W. H., & Nurdyansyah, N. (2020). The Development Of Direct-Contextual Learning: A New Model On Higher Education. *International Journal Of Higher Education*, 10(2), 15-26. <https://doi.org/10.5430/Ijhe.V10n2p15>
- Charline, C., Jo, S., & Frédéric, E. (2023). Use Of Learning Media To Increase Student Learning Motivation

- In Junior High Schools. *World Psychology*, 2(3), 176–189. <https://doi.org/10.55849/wp.v2i3.402>
- Darma, W. P., Komang S, I., & Wayan I. Y. S, I. (2019). Pengembangan Media Video Pembelajaran Berorientasi Pendidikan Karakter (Development of Character Education Oriented Learning Video Media). *Journal Of Education Technology*, 3(3), 140–146. <https://Ejournal.Undiksha.Ac.Id/Index.Php/JET/Article/View/21735>
- Dwi, R., & Juhadi, I. S. (2020). Vlog (Video Blogging) Kelestarian Lingkungan Sungai Sebagai Media Pembelajaran Tematik Untuk Siswa Sekolah Dasar (Vlog (Video Blogging) River Environmental Sustainability as Thematic Learning Media for Elementary School Students). *Journal Geografi Edukasi*, 8(3), 218–224. <https://Journal.Unnes.Ac.Id/Sju/Index.Php/Edugeo/Article/Download/41205/16972>
- Effing, R., & Spil, T. A. M. (2016). The Social Strategy Cone: Towards A Framework For Evaluating Social Media Strategies. *International Journal Of Information Management*, 36(1), 1–8. <https://Doi.Org/10.1016/J.Ijinfomgt.2015.07.009>
- Gui, M., Gerosa, T., Argentin, G., & Losi, L. (2023). Mobile Media Education As A Tool To Reduce Problematic Smartphone Use: Results Of A Randomised Impact Evaluation. *Computers And Education*, 194(December 2022), 104705. <https://Doi.Org/10.1016/J.Compedu.2022.104705>
- Hapsari, I. I., & Fatimah, M. (2021). Inovasi Pembelajaran Sebagai Strategi Peningkatan Kualitas Guru Di SDN 2 Setu Kulon (Learning innovation as a strategy to improve teacher quality at SDN 2 Setu Kulon). *Prosiding dan Web seminar Standardisation of Primary School Education Towards the Era of Human Society 5.0*, 3(1), 187–194. <https://e-journal.umc.ac.id/index.php/pro/article/view/2236>
- Hapsari, P, P, G., & Zulherman. (2021). Pengembangan Media Vidio Animasi Berbasis Aplikasi Canva Untuk Meningkatkan Motivasi Dan Prestasi Belajar Siswa (Development of Animation Video Media Based on Canva Application to Improving Student Motivation and Learning Achievement). *Jurnal Basicedu*, 5(4), 64–72. <https://doi.org/10.31004/basicedu.v5i4.1237>
- Haryadi, R., Nuraini, H., K., A. (2021). Pengaruh Media Pembelajaran E-Learning Terhadap Hasil Belajar Siswa (The Effect of E-Learning Media on Student Learning Outcomes). *Attalim : Jurnal Pendidikan*, 7(1), 68–73. <https://ejournal.unzah.ac.id/index.php/attalim/article/download/426/449>
- Ilham, M., Naufal, A., Sahrina, A., Soekamto, H., Bachri, S. (2023). Media Video Blogging Pada Microlearning Materi Mitigasi Bencana (Video Blogging Media on Microlearning Disaster Mitigation Material). *Jurnal Ilmiah Pendidikan Profesi Guru*, 6(1), 96–108. <https://doi.org/10.23887/jippg.v6i1.59677>
- Ilsa, A., F, F., & Harun, M. (2020). Pengembangan Video Pembelajaran Dengan Menggunakan Aplikasi Powerdirector 18 Di Sekolah Dasar (Development of Learning Videos Using Powerdirector 18 Application in Elementary School). *Jurnal Basicedu*, 5(1), 288–300. <https://Doi.Org/10.31004/Basicedu.V5i1.643>
- Iriawan, S. B., Fitriani, A. D., Muvlifa, R., Robandi, B., Nuryadi, P., Mayadiana, D., Djumhana, N., Saepudin, A., & Saputri, E. (2022). Pengembangan Bahan Ajar Matematika Bidang Kajian (Development of Mathematics Teaching Materials for Abstract Study). *Jurnal Edupena*, 3(1), 1–28. <https://doi.org/10.20961/jdc.v6i2.62088>
- Lu, B., & Hanim, R. N. (2024). Enhancing Learning Experiences Through Interactive Visual Communication Design In Online Education. *Eurasian Journal Of Educational Research*, 2024(109), 134–157. <https://Doi.Org/10.14689/Ejer.2024.109.009>
- Mhlongo, S., Mbatha, K., Ramatsetse, B., & Dlamini, R. (2023). Challenges, Opportunities, And Prospects Of Adopting And Using Smart Digital Technologies In Learning Environments: An Iterative Review. *Heliyon*, 9(6), E16348. <https://doi.org/10.1016/j.heliyon.2023.e16348>
- Moreno-Guerrero, A. J., Rodríguez-Jiménez, C., Gómez-García, G., & Navas-Parejo, M. R. (2020). Educational Innovation In Higher Education: Use Of Role Playing And Educational Video In Future Teachers' Training. *Sustainability (Switzerland)*, 12(6), 1-14. <https://Doi.Org/10.3390/Su12062558>
- Novaliendry, D., Darmi, R., Hendriyani, Y., Nor, M, A, A. (2020). Smart Learning Media Based On Android Technology. *International Journal Of Innovation, Creativity And Change*, 12(11), 715–735. [https://Www.Ijicc.Net/Images/Vol12/Iss11/121109\\_Novaliendry\\_2020\\_E\\_R.Pdf](https://Www.Ijicc.Net/Images/Vol12/Iss11/121109_Novaliendry_2020_E_R.Pdf)
- Nuritha, C., & Tsurayya, A. (2021). Pengembangan Video Pembelajaran Berbantuan Geogebra Untuk Meningkatkan Kemandirian Belajar Siswa (Development of Geogebra-assisted Learning Videos to Increase Student Learning Independence). *Jurnal Cendekia : Jurnal Pendidikan Matematika*, 5(1), 48–64. <https://Doi.Org/10.31004/Cendekia.V5i1.430>
- Qonita S, M., & Rachmadyanti, P. (2018). Pengembangan Media Pembelajaran Video Animasi Berbasis Sparkol Videoscribe Tentang Persiapan Kemerdekaan Ri Sd Kelas V (Development of Sparkol Videoscribe-Based Animated Video Learning Media about Preparation for Independence Ri Sd Class

- V). *Jpgsd*, 6(4), 486–495. <https://ejournal.unesa.ac.id/index.php/jurnal-penelitian-pgsd/article/view/23611>
- Rahayu, R., Iskandar, S., & Abidin, Y. (2022). Inovasi Pembelajaran Abad 21 Dan Penerapannya Di Indonesia (21st Century Learning Innovation and Its Application in Indonesia). *Jurnal Basicedu*, 6(2), 2099–2104. <https://doi.org/10.31004/basicedu.v6i2.2082>
- Rasman, J., Berbantuan, P., & Vol, T. (2021). Penggunaan Youtubesebagai Mediapembelajaran Bahasainggrispadamasa Pandemi Covid 19 (The Use of YouTube as an English Language Learning Media during the Covid 19 Pandemic). *EDUTECH : Jurnal Inovasi Pendidikan Berbantuan Teknologi*, 1(2), 118–126. <https://doi.org/10.51878/edutech.v1i2.442>
- Sariipudin, D., Komalasari, K., Anggraini, D. N. (2021). Value-Based Digital Storytelling Learning Media To Foster Student Character. *International Journal Of Instruction*, 14(2), 369–384. <https://doi.org/10.29333/iji.2021.14221a>
- Setiawati, T., Pranata, H, O., & Halimah, M. (2019). Pengembangan Media Permainan Papan Pada Pembelajaran Ips Untuk Siswa Kelas V Sekolah Dasar (Development of Board Game Media in Ips Learning for Grade V Elementary School Students). *Pedadidaktika: Jurnal Ilmiah Pendidikan Guru Sekolah Dasar*, 6(1), 163–174. <http://Ejournal.Upi.Edu/Index.Php/Pedadidaktika/Index>
- Sirwan Mohammed, G., Wakil, K., & Sirwan Nawroly, S. (2018). The Effectiveness Of Microlearning To Improve Students' Learning Ability. *International Journal Of Educational Research Review*, 3(3), 32–38. <https://doi.org/10.24331/ijere.415824>
- Solihatini, I. T., Abidin, Y., & Aljamaliah, S. N. M. (2021). Pengembangan Media Video Motion Graphic Dalam Pembelajaran Menulis Pantun Pada Masa Pandemi Covid 19 (Development of Motion Graphic Video Media in Learning Writing Pantun during the Covid 19 Pandemic.). *Diksa : Pendidikan Bahasa Dan Sastra Indonesia*, 7(2), 80–89. <https://doi.org/10.33369/diksa.v7i2.20986>
- Sugiyono. (2016). *Metode Penelitian Kuantitatif, Kualitatif dan Kombinasi (Combined Research Methods) (Quantitative, Qualitative and Combined Research Methods)*. Alfabeta. <https://elibrary.bsi.ac.id/readbook/204288/metode-penelitian-kuantitatif-kualitatif-dan-kombinasi-mixed-methods->
- Sugiyono. (2016). *Metode Penelitian Manajemen (Pendekatan Kuantitatif, Kualitatif, Kombinasi (Mixed Methods), Penelitian Tindakan (Action Research, dan Penelitian Evaluasi) (Management Research Methods (Quantitative, Qualitative, Combination (Mixed Methods, Action Research*. Alfabeta. <https://inlislite.uin-suska.ac.id/opac/detail-opac?id=31528>
- Sugunan, S & Thiyagu K. (2023). Empowering Education Through Microlearning: Leveraging The Potential Of Google Platforms For Sustainable Learning. *EDUTRACKS*, 23(1), 34–40. [https://www.researchgate.net/publication/374036410\\_Empowering\\_Education\\_through\\_Microlearning\\_Leveraging\\_the\\_Potential\\_of\\_Google\\_Platforms\\_for\\_Sustainable\\_Learning](https://www.researchgate.net/publication/374036410_Empowering_Education_through_Microlearning_Leveraging_the_Potential_of_Google_Platforms_for_Sustainable_Learning)
- Widianto, E., Husna, A., Sasami, N, A., Rizkia, F, E., Dewi, K, F., Cahyani, I, A, S. (2021). Pemanfaatan Media Pembelajaran Berbasis Teknologi Informasi. *Journal Of Education And Teaching*, 2(2), 213-224. <https://doi.org/10.24014/jete.v2i2.11707>
- Zaini, M. S., & Nugraha, J. (2020). Pengembangan Media Pembelajaran Multimedia Interaktif Berbasis Adobe Premiere Pro Pada Kompetensi Dasar Mengelola Kegiatan Humas Kelas XI Administrasi Perkantoran Di SMK Negeri 2 Buduran Sidorajo (Development of Interactive Multimedia Learning Media Based on Adobe Premiere Pro on Basic Competencies for Managing Public Relations Activities for Class XI Office Administration at SMK Negeri 2 Buduran Sidorajo). *Jurnal Pendidikan Administrasi Perkantoran (JPAP)*, 9(2), 349–361. <https://doi.org/10.26740/jpap.v9n2.p349-361>