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VIDEO-BASED LEARNING DEVELOPMENT VIDEO DIGITAL STORYTELLING IN THE MATERIAL ON WEATHER AND CLIMATE CLASS 5 ELEMENTARY SCHOOL

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Abstract

Digital Storytelling Video is a learning medium that contains explanations of material using everyday language. The material used in Digital Storytelling Video is Getting to Know Our Earth on the topic of Weather and Climate Change in the Natural and Social Sciences (IPAS) subject. This type of research is Research and Development (R&D) with the Sadiman development model. This study aims to validate the feasibility of the product and test the effectiveness of learning using Digital Storytelling Video-Based Learning Videos on Weather and Climate Materials. Data collection techniques used in this study were expert validation questionnaires, student feedback questionnaires, pre-tests and post-tests. The target population of this study was 5th grade students of SDN Dadaprejo 02 Batu. The results of student feedback received positive responses from students covered in 3 aspects, namely the aspect of interest of 92%, the aspect of ease of 86% and the aspect of learning experience of 96%. So that the Development of Digital Storytelling Videos on Climate Materials is feasible to use in the learning process. The results of the pre-test and post-test trials showed an increase in the initial pass rate in the pre-test of 5% after using Video Digital Storytelling in learning increased to 79% in the post-test. The provision of pre-test and post-test students also experienced an increase in the pass rate after using Video Digital Storytelling in learning.

Keywords: Instructional Media, Video Digital Storytelling, Weather and Climate

1. Introduction

Technological advances have brought major changes in the world of education, the use of digital technology in various aspects of education has become commonplace. This requires all related parties to continue to innovate and keep up with the times, starting from the management system to the learning process using technology. For example, in the world of education today, there are many uses of technology that have a positive and beneficial impact on education in Indonesia, such as Internet technology (Sudiarta & Sadra, 2016). The process of adapting technology in education is clearly visible from changes in the use of learning media. The integration of technology in learning models and methods in the classroom requires teachers and students to continue learning and developing their abilities in utilizing various digital devices and applications.

In the learning process, the use of learning media is crucial to ensure optimal teaching and learning activities. Learning media encompasses everything that serves as a link between teachers as information transmitters and students as information receivers (Hasan, n.d.). Learning media as an aid also has several functions, such as: 1) As a means of helping to create a more effective learning situation; 2) As a component that is interconnected with other components in order to create the desired learning situation; 3) Accelerating the learning process; 4) Improving the quality of the teaching and learning process; 5) Making the abstract concrete, thereby reducing the occurrence of verbalism.

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On the other hand, various types of learning media have been developed using the latest technology. From learning videos and interactive simulations to online learning platforms, all are designed to meet diverse learning needs. This demonstrates that learning media has become an integral part of the modern learning process. Technology is a collection of tools, processes, and systems designed to solve problems and meet human needs. Technology often involves innovations and new discoveries that can change the way we work, learn, and interact with others (Castells, 2004). Technological developments enable learning media to accelerate the learning process and improve the quality of learning. Learning videos are media that present audio and visuals containing learning messages, concepts, principles, procedures, theories, and applications of knowledge to aid understanding of learning material.

Digital Storytelling Video is one example of the application of technology in education, (Banaszewski, 2005) defines that digital storytelling is a technique that combines storytelling skills with advances in digital technology, where elements such as images, sound, text, and music are used simultaneously. This allows for a more effective and engaging delivery of material. The main uniqueness of digital storytelling lies in the personal narrative element, which distinguishes it from other learning videos. This helps students not only understand the material cognitively, but also become emotionally involved in learning. Digital storytelling videos also provide real context that helps students see the practical application of what they learn, thereby improving their memory and understanding. The ease of presenting videos that can be repeated during the learning process makes it easier for students to understand the content of the video, in addition to the presentation of a structured material also makes it easier for students to understand the material, especially about concepts, (Sudiarta & Sadra, 2016).

One of the subjects suitable for using digital video storytelling as a learning medium is Natural and Social Sciences (IPAS). IPAS is the study of living and nonliving things in the universe, as well as the interactions between them, including human interactions as individuals. and social beings with their environment. In general, science is understood as a collection of information arranged logically and systematically, taking into account cause-and-effect relationships. In the world of education, science subjects cover two main areas of the curriculum: understanding natural phenomena and human life, making them highly relevant for delivery through engaging and interactive digital storytelling methods.

According to Piaget's theory, elementary school-aged children are in the concrete operational stage of thought, where their mental activity focuses on real objects or events they have experienced (Desmita, 2009). At this stage, children's ability to process information and understand the world around them matures. They begin to think more systematically and logically and are able to perform mental operations on concrete objects. Children in this phase can understand cause-and-effect relationships, classify objects based on certain attributes, and have a better understanding of the concepts of size, volume, and time. This concrete operational thought allows children to transcend the limitations of simpler pre-operational thought and prepares them for deeper learning in areas such as mathematics, science, and everyday challenges.

The problem encountered through pre-research conducted at SDN Dadaprejo 02 Batu was that classroom learning that only utilized Student Worksheets as a learning medium resulted in decreased student understanding and a tendency to get bored easily during the learning process. Therefore, based on the background of the problem above, this study aims

to develop a Digital Storytelling Video on Climate Material for Grade 5 at SDN Dadaprejo 02 Batu.

Based on the background of the problem above, it is necessary to develop learning media in the form of Digital Storytelling Video as an effort to improve student understanding and facilitate science learning, especially on the theme of Getting to Know Our Earth. The material contained in the Digital Storytelling Video Storytelling is about weather and climate. Therefore, research is needed on "Developing Digital Storytelling-Based Learning Videos for Weather and Climate Materials for 5th Grade Elementary School."

1.1. Instructional Media

Learning media has played a vital role in education for centuries and has undergone continuous development. In ancient times, the earliest form of learning media was oral communication, where important information and stories were passed down from one generation to the next through folktales, fairy tales, and speeches. However, with the advent of writing in ancient times, written media such as clay tablets and papyrus scrolls began to be used as the primary means of storing and disseminating knowledge. The term "media" comes from the Latin word medius, meaning 'middle,' 'intermediary,' or 'connector,' or can be interpreted as a tool used to convey messages from sender to receiver. Learning media is anything that can be used to convey messages from sender to receiver (Sadiman, 2008). In this context, learning media serves to stimulate students' thoughts, feelings, attention, and interests so that the learning process can take place more effectively.

In the Middle Ages, learning media experienced rapid progress thanks to the invention of the printing press by Johannes Gutenberg in the 15th century. This innovation drastically transformed the world of education by facilitating the mass production of books and teaching materials. Furthermore, in the 19th century, the development of photography technology had a significant impact on the development of learning media. Accurately reproducible images improved the quality of illustrations in textbooks.

The 20th century was an era of extraordinary advances in instructional media technology. The use of film as a learning tool expanded, giving students the opportunity to learn through moving images and sound. Television also played a significant role, with educational programs combining elements of entertainment and learning. Computer innovations in the 1960s ushered in a new revolution in instructional media. Computer programs first enabled students to learn interactively, integrating text, images, and sound.

With the advent of the internet in the late 20th century, learning media underwent significant changes. Easy access to information and online learning resources facilitated distance learning and self-paced learning. Educational websites, e-learning platforms, and online learning videos increasingly dominated the education sector. Furthermore, mobile devices also played a role in increasing the accessibility of learning media, allowing students to learn anytime and anywhere.

In the contemporary era, learning media is becoming increasingly sophisticated, one of which is the use of digital storytelling videos. Digital storytelling is defined as "the practice of combining personal narratives with multimedia (images, audio, and text) to produce short, autobiographical films." This definition explains that digital storytelling is a technique that combines storytelling skills with advances in digital technology, which includes elements of images, sound, narration, and music simultaneously (Banaszewski, 2005).

The history of learning media has undergone rapid change over time. From oral delivery to advanced technologies like digital video storytelling, learning media continues to

adapt to technological developments and educational needs. Wise use of learning media can enrich students' learning experiences and help achieve educational goals more efficiently.

1.2. Video Digital Storytelling

Digital video storytelling is a storytelling method that utilizes digital technology to convey messages through a combination of multimedia, such as images, video, sound, text, and music. In this case, the story is structured in a short video format by combining visual and audio elements to create an engaging and emotional viewing experience. The use of personal narratives and dynamic visualizations in digital video storytelling allows for a more personal and in-depth message delivery than using text or sound alone. In education, digital video storytelling is an effective learning tool because it can capture students' attention and help them better understand the material.

Digital stories created with a visual and narrative approach allow complex concepts to become more concrete and memorable. Furthermore, creating digital storytelling videos also encourages students to develop communication skills, conceptual understanding, and the ability to express their ideas. This way, students are not just passive listeners but can also actively participate in the learning process. The use of digital storytelling videos is also in line with technological developments and current educational needs, where learning media must be able to adapt to digital advancements. This method not only helps students understand learning concepts but also facilitates more inclusive, creative, and effective teaching. By combining various multimedia elements, teachers can deliver material that suits various student learning styles, increase learning motivation, and enrich their classroom experience.

Digital Storytelling first came to attention in the 1990s through the work of the Center for Digital Storytelling, founded by Joe Lambert in Berkeley, California. This organization designed a methodology Digital storytelling emphasizes personal experiences and emotional narratives. As a learning and communication tool, digital video storytelling is increasingly being used in education, culture, and marketing to convey profound and memorable messages. Digital video storytelling has now become a key tool in 21st-century learning, playing a vital role in encouraging student engagement through interactive media that is relevant to their lives.

There are seven key elements that must be considered in digital storytelling so that the resulting video can achieve effectiveness. These elements include (1) point of view, which is an initial overview of the story's content while also showing what students will learn, for example through the title. (2) dramatic questions or questions designed to guide students in understanding the main information conveyed. (3) emotional content, which includes a varied presentation of content to create an interesting and non-monotonous learning experience. (4) voice refers to the narrative voice that aligns with the story's content, thus helping to convey the message more clearly and interestingly. (5) soundtrack, which is background music used to increase the appeal and support the atmosphere of the story. (6) economy, which emphasizes efficient time management so that information is conveyed optimally and not excessively. (7) pacing, which is regulating the rhythm or time intervals in conveying information so that the storyline feels natural and not rushed (Bull & Kajder, 2005). All of these elements are designed to create a digital storytelling experience that is effective, immersive, and able to attract maximum audience attention.

1.3. Weather and Climate

Weather refers to the atmospheric conditions at a particular place at a particular time, influenced by factors such as temperature, humidity, air pressure, wind, and rainfall. Weather can change rapidly, from day to day or even hour to hour. Therefore, weather observations are often conducted to determine current atmospheric conditions that can affect human activities. This rapid change in weather distinguishes it from a more stable climate over the long term, while climate is the average weather conditions in an area over a long period of time, usually 30 years or more. Climate describes the weather patterns or trends that occur in a region over the long term. Climate is more stable and does not change rapidly like weather. Factors that influence climate include geographic location, altitude, and proximity to large bodies of water. Climate can also be divided into various types, such as tropical climate, temperate climate, and polar climate.

Furthermore, factors that influence weather and climate include temperature, air pressure, humidity, wind, and rainfall. Temperature influences the formation of clouds and rain, while wind influences the movement of air masses that carry weather from one place to another. A region's geographic location, such as its proximity to the equator or the poles, significantly influences the climate patterns that occur in that area. The altitude of an area also plays a role in determining air temperature and humidity, which in turn affect weather conditions.

Learning about weather and climate plays a crucial role in addressing environmental challenges in the era of globalization. A deeper understanding of weather and climate not only raises students' awareness of the differences between weather and climate but also teaches them about their role in protecting the environment. With increasing connectivity between countries, knowledge about climate change can be disseminated more rapidly, and every individual worldwide is expected to have a basic understanding of this issue. Rapidly developing technology and information systems in the era of globalization enable more interactive learning about weather and climate, utilizing real-time data from satellites, radar, and global climate models. Thus, learning about weather and climate is not only useful for understanding natural phenomena but also to respond to global problems such as global warming, which affects all countries in the world.

2. Method

This research is in the form of Research and Development (R&D) which aims to produce quality products from systematic and objective activities in the form of data collection, processing, analysis, and presentation (Haryati, 2012). This learning media or Digital Storytelling Video product will be developed using the Sadiman model. The Sadiman development model is a procedural model that includes Identification of Needs, Formulation of Objectives, Formulation of Material Points, Formulation of Assessment Instruments, Writing Media Scripts, Trials, Revisions, and Production. Paragraphs must be orderly. All paragraphs must be written using justified alignment, which is both left and right aligned.

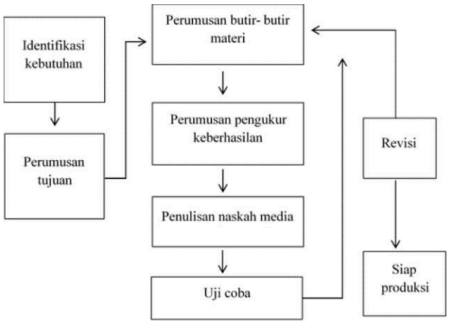

Figure 1. Sadiman Development Model

The trial conducted in this study used a questionnaire with a rating scale of 1–4, as well as pre- and post-tests. The product was first validated by material experts and media experts. The material expert validation questionnaire covered aspects of content quality, objectives, and learning quality. The media expert validation questionnaire covered aspects of suitability, attractiveness, ease of use, and usefulness.

The product was then piloted on students in two stages: the first to determine improvements in student knowledge and understanding through pre- and post-tests. The second to assess student responses and their feelings after using Video Digital Storytelling through a feedback questionnaire covering aspects of interest, ease of use, and learning experience.

3. Results and Discussion

3.1 Result

In this study, there are several steps taken. The first step in this model is to conduct a needs analysis, which aims to identify problems that need to be solved. In the context of developing learning media, this analysis includes identifying the needs of the audience or users, the learning objectives to be achieved, and available resources. Through in-depth analysis, developers can determine whether the product or media to be developed is relevant and useful for the intended audience. This step also helps to ensure that the developed media will be in accordance with the needs and characteristics of users. The needs analysis was conducted using observation and interview methods conducted in class 5A SDN Dadaprejo 02 Batu. This is intended to collect data and information from teachers and students regarding the gaps between actual conditions and expected conditions. The results of this needs analysis include the creation of learning media in the form of learning videos to facilitate the weather and climate material in the Natural Sciences subject.

The second stage is design. This stage includes a series of activities for the development process, such as creating a product development schedule, creating product specifications, creating material designs, creating media scripts, and preparing equipment such as cellphones/laptops that will be needed for the validation process by material experts and media experts. The product development schedule is October 2024. Additional tools required are the Adobe Premiere and CapCut platforms.

The third stage is development. The activities involved processing the video using Adobe Premiere. The narrated content or material is then prepared in video format. The

material explains weather and climate. To enhance the immersive experience, pleasant background music is added.

Figure 2. Opening View

Figure 3. Weather Material Explanation Display

Figure 4. Display of Explanation of Rain Cycle Material

Figure 5. Climate Material Explanation Display

Figures 2-5 show a video explaining the material, including weather, the rain cycle, and climate. The video begins with an explanation of weather, covering seven common types of weather. The video then continues with a display explaining the rain cycle. The video concludes with an explanation of climate, discussing the differences between weather and climate and the factors that influence climate in various regions.

The fourth stage is implementation. At this stage, field trials are conducted to determine and collect data on the products that have been created. Digital Storytelling Videos on weather and climate topics will be tested with material experts and media experts to determine the quality of the products created.

The Validation of material expert was tested on a PGSD lecturer at Malang State University who teaches the Science course. The media expert validation was tested on a lecturer from the Department of Educational Technology with a Master's degree in Learning Technology who has expertise and understanding of learning media design.

The validation results of the Digital Storytelling Video Development on weather and climate material by material experts obtained a positive assessment of the developed product. Of the 10 statements in the material expert validation questionnaire, there were 2 statements that received a score of 4 (Strongly Agree) and 8 statements that received a score of 3 (Agree). Therefore, the results of the material expert validation questionnaire obtained an average of 3.1. There were revisions to the expression and gesture sections when explaining in the video.

The validation results of the Digital Storytelling Video Development on weather and climate material by media experts obtained a positive assessment of the developed product. Of the 20 statements in the material expert validation questionnaire, there were 18 statements that received a score of 4 (Strongly Agree) and 2 statements that received a score of 3 (Agree). Therefore, the results of the media expert validation questionnaire obtained an average of 3.9. There was a revision from the media expert regarding the text color in one of the video explanations.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
NGain	14	.35	1.00	.7845	.20730
Valid N (listwise)	14				

Figure 6. Climate Material Explanation Display

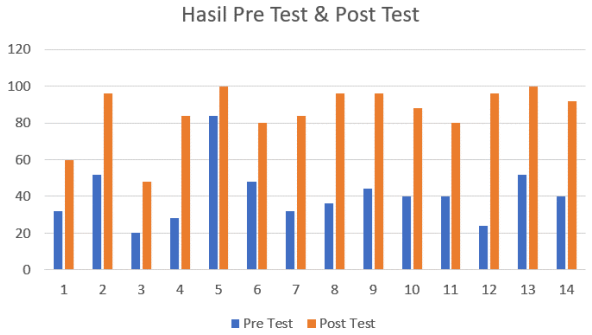

Figure 7. Pre-Test and Post-Test Results

In addition to validity testing by media and content experts, this study also conducted pre- and post-tests to determine students' knowledge and understanding of the Climate material. The pre- and post-tests consisted of 15 multiple-choice questions covering levels C1 and C2 of thinking, based on Bloom's Taxonomy.

The results of the pre-test and post-test showed an N-Gain value of 0.78, which is classified as high. Based on the figure above, before students used Video Digital Storytelling and took the pre-test, there were 13 students who scored below 75 and only 1 student who scored above 75. This indicates that many students have not achieved the Minimum Completion Criteria (KKM). However, after using Video Digital Storytelling and taking the post-test, there was an increase in the number of students who scored above 75, namely 12 students, who successfully met the Minimum Completion Criteria (KKM).

Table 1. Results of the Attractiveness Aspect Questionnaire

No.	Statement	Amount Responden (S+SS)	Percentage of Responses Positive
1	Selection of fonts in the captions Video Digital Storytelling it's right.	14	100%
2	Selection of letter color in the description Video Digital Storytelling it's right.	14	100%
3	The material presented in Video Digital Storytelling is in accordance with the description in the LKS.	14	100%
4	The material presented in Video Digital Storytelling is complete.	14	100%
5	Channel Video Digital Storytelling easy to understand.	9	64%
6	Video Digital Storytelling easy to operate on various devices. (Mobile Phone/Laptop)	13	93%
7	Video Digital Storytelling can be used anywhere and anytime.	11	78%
8	Video Digital Storytelling easy to understand because it is presented according to student characteristics.	13	93%
9	Video Digital Storytelling easy to understand because it is in accordance with what is taught in class.	14	100%

The results of the student feedback questionnaire were divided into three aspects: interestingness, ease of use, and learning experience. The interestingness aspect received a positive response from students, with the highest percentage being 100% and the lowest being 64%. The lowest percentage was for item 5, which received a negative response from 5 students. Therefore, it can be interpreted that there are still some students who cannot

understand the overall flow of Video Digital Storytelling. However, overall, the interestingness aspect received a positive response from students.

Table 2. Results of the Ease of Use Aspect Questionnaire

No.	Statement	Amount Responden (S+SS)	Percentage of Responses Positive
10	Video Digital Storytelling has clear video quality.	13	93%
11	Video Digital Storytelling has clear animation/image quality.	10	71%
12	Audio on Video Digital Storytelling sounds clear.	14	100%
13	The background music matches the theme of the learning media.	14	100%
14	The language used is easy to understand.	11	78%
15	The narration displayed corresponds to the video displayed.	11	78%
16	Video Digital Storytelling have an appropriate duration when used in learning.	13	93%

Regarding the ease of obtaining positive responses from students, the highest percentage reached 100%, while the lowest percentage was 71%. This lowest percentage was found in item 11, which received negative responses from four students. This indicates that the quality of animations or images in the learning materials still needs improvement. Some of the animations or images were of poor quality, making the material less appealing to some students. However, overall, the aspect of interest in the material still received positive responses from students.

Table 3. Results of the Learning Experience Aspect Questionnaire

No.	Statement	Amount Responden (S+SS)	Percentage of Responses Positive
17	Video Digital Storytelling provide a new way of learning for me.	14	100%
18	Video Digital Storytelling facilitates my learning needs.	12	86%

19	Video Digital Storytelling provide new learning interactions for me	13	92%
20	Video Digital Storytelling makes it easier for me to understand weather and climate material.	14	100%

In the learning experience aspect, positive responses from students reached the highest percentage of 100%, with the lowest percentage being 86%. However, there were negative responses from two students to statements related to meeting learning needs, and one student to a statement related to providing new learning interactions. Nevertheless, overall, the learning experience aspect received positive responses from students. Thus, overall, the student feedback questionnaire met three main aspects: interestingness, ease of use, and learning experience.

The fifth stage is evaluation. This stage is based on validation results from material and media experts, as well as student feedback. This demonstrates that the Digital Storytelling Video product is suitable for use in broader learning processes.

3.2 Discussion

Media development requires validation from experts to obtain input that can be used for media improvement and evaluation. In the context of developing Digital Storytelling Videos on Climate Material, the validation process involves material and media experts. The material expert acts as a validator who provides an assessment regarding the quality of the content and objectives of the material as well as the quality of learning, while the media expert is responsible for assessing media aspects such as suitability, attractiveness, ease of use and usefulness. The results of the material expert validation test obtained an average score of 3.2 with revisions to expressions and gestures in one of the explanations in the video. Meanwhile, the results of the media expert validation obtained an average score of 3.9 with revisions to color improvements in one of the captions in the video. Overall, the development of Digital Storytelling Videos on Climate Material for 5th grade elementary school was declared valid. After the media and material expert validation test process, a field trial was conducted on 5th grade students of SDN Dadaprejo 02 Batu. In the pre-test given, there were 13 students who scored below 75 which means they did not reach the Minimum Completion Criteria (KKM) and 1 student who scored above 75 which means they reached the Minimum Completion Criteria (KKM). Then after the process of delivering the material and testing the Digital Storytelling Video product, students were given a post-test again. In the post-test there was an increase in the number of students who reached the Minimum Completion Criteria (KKM) as many as 12 students scored above 75 which means they reached the Minimum Completion Criteria (KKM) and 2 students scored below 75 which means they did not reach the Minimum Completion Criteria (KKM). So if it is concluded there is an increase in understanding, which was originally a level of completion in the pre-test of 5%, then getting treatment in the form of delivering material and using Digital Storytelling Video changed to 79% after completing the post-test. This shows an increase in both the level of knowledge (C1) and understanding (C2) of students.

Then, in this study, a student feedback questionnaire was distributed to determine what students felt after using Video Digital Storytelling. This questionnaire covered aspects of interest, ease, and learning experience with a total of 20 statements. This questionnaire was

aimed at 14 5th grade students of SDN Dadaprejo 02 Batu and received a positive response with an average percentage of 92% in the interest aspect, 86% in the ease aspect, and 96% in the learning experience aspect. Thus, it can be concluded that the use of Video Digital Storytelling on Climate Material is suitable for use as a learning medium in the classroom.

Learning videos integrated with digital storytelling are an innovative approach to education that combines visual media and narrative to convey information or learning materials in an engaging and interactive way. Digital storytelling itself is a storytelling method.

Using multimedia, such as images, audio, video, and text, to build stories that can increase student understanding and engagement. When learning videos are integrated with this technique, students not only receive information passively but are also invited to actively participate in the learning process. Therefore, it can be said that Video Digital Storytelling is a learning experience that has great potential to improve critical thinking skills, creativity, and student engagement. (Robin, 2008) The conventional learning process used by teachers using lectures can be transformed by utilizing technology, one of which is through Video Digital Storytelling to deliver material in a more interesting and interactive way. The main advantage of using this video is its ability to present content in a way that is easier for students to understand. The experience in the learning process is different from the content of the learning material or the activities carried out by educators. The definition of learning experience refers to the interaction between students and the external conditions in the environment to which they respond. Learning occurs through active student activity, in the form of things they do during the learning process. Based on the data above, learning using Video Digital Storytelling can provide new learning experiences for students. This is evidenced by the positive responses obtained by 92% for the interestingness aspect, 87% for the ease aspect, and 94% for the learning experience aspect obtained through the student feedback questionnaire. Formulating learning experiences is important as a guide for educators to develop learning strategies or methods and improve students' understanding of learning outcomes.

Understanding learning outcomes refers to the level of understanding or knowledge a person has acquired after undergoing a learning process. This includes the ability to master the material, concepts, or skills taught in a subject. Understanding learning outcomes can be measured through various forms of evaluation, tests, or assignments that require the application of acquired knowledge. Furthermore, understanding learning outcomes can also involve students' ability to apply and relate learned concepts to real-world situations.

The learning process using Video Digital Storytelling can support cognitive abilities because it contains features such as animation, images, text, and audio that can provide a unique learning experience. In addition, the presentation of material that is not yet included in the (LKS) can be presented in Video Digital Storytelling to strengthen students' knowledge and understanding of the material. This can certainly support students' different learning styles by using three learning modalities: visual, auditory, and kinesthetic in one medium, which can help understanding related to the learning material for each student who has a different learning style simultaneously (Rusman & Pd, 2011).

Digital video storytelling still faces several challenges to overcome, particularly in the educational setting. One of these challenges is educators' limited technological expertise. Many teachers are unfamiliar with the video editing or animation software needed to produce high-quality videos. Furthermore, there are challenges in creating effective and engaging narratives that effectively capture the student's message. However, this demonstrates that

digital video storytelling is a constantly evolving technology. Therefore, it can be concluded that over time, most of the issues that arise will continue to be addressed. Considering its clear benefits, its continued development is recommended.

4. Conclusion

Based on the validation results of the material experts who got an average of 3.1 and the validation results of the media experts got an average of 3.9. So it can be concluded that the Development of Digital Storytelling Videos on Climate Material is declared valid. The results of student feedback received a positive response from students which is covered in 3 aspects, namely the aspect of interest by 92%, the aspect of ease by 86% and the learning experience aspect achieved 96%. Therefore, it can be concluded that the development of digital storytelling videos on climate topics is suitable for use in the learning process.

The results of the pre-test and post-test trials showed an increase in the student's pass rate from 5% in the pre-test after using Video Digital Storytelling in learning, increasing to 79% in the post-test. So it can be concluded that the Development of Video Digital Storytelling on Climate Material is able to improve students' knowledge and understanding. So overall, the Development of Video Digital Storytelling on Climate Material in grade 5 of SDN Dadaprejo 02 Batu received a positive assessment in the form of valid and suitable learning media for use.

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