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Learning Videos On Theme Of Our Friend's Environment, Sub-Theme Of Humans, And Elementary School Environment

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ABSTRAK

Berdasarkan permasalahan yang ditemukan di sekolah tempat peneliti diketahui bahwa metode pembelajaran yang digunakan guru masih dominan menggunakan metode penugasan dan ketersediaan media di sekolah masih sangat minim. Penelitian ini bertujuan untuk menciptakan pengembangan produk video pembelajaran untuk siswa kelas V SD dan mengembangkan video pembelajaran untuk siswa kelas V SD yang teruji validitasnya. Penelitian ini mengacu pada prosedur model pengembangan ADDIE. Subjek penelitian ini adalah ahli isi materi, ahli desain pembelajaran, ahli media pembelajaran, dan siswa kelas V SD. Objek penelitian ini adalah validitas video pembelajaran. Pengumpulan data pada penelitian ini menggunakan metode kuesioner dengan memberikan lembar penilaian kepada dosen ahli isi materi, ahli desain pembelajaran, ahli media pembelajaran, dan siswa kelas V SD. Data yang digunakan pada penelitian pengembangan ini yakni data kualitatif dan kuantitatif. Hasil uji validitas video pembelajaran memperoleh hasil: ahli isi materi memperoleh hasil 93,33% dengan kualifikasi sangat baik, ahli desain pembelajaran memperoleh hasil 89,09% dengan kualifikasi baik, ahli media pembelajaran memperoleh hasil 92,5% dengan kualifikasi sangat baik, dan uji coba perorangan memperoleh hasil 98,6% dengan kualifikasi sangat baik. Berdasarkan hasil analisis data tersebut, dapat dinyatakan bahwa media video pembelajaran ini layak digunakan pada tema lingkungan sahabat kita subtema manusia dan lingkungan kelas V SD.

ABSTRACT

Based on the problems found in the school where the researcher is known, the learning method used by the teacher is still predominantly using the lecture method, and the availability of media in schools is still very minimal. This study aims to create learning video product development for fifth-grade elementary school students and to develop learning videos for fifth-grade elementary school students whose validity has been tested. This research refers to the ADDIE development model procedure. The subjects of this study were material content experts, instructional design experts, instructional media experts, and fifth-grade elementary school students. The object of this research is the validity of the instructional videos. This study using a questionnaire method by providing assessment sheets to material content expert lecturers, learning design experts, instructional media experts, and fifth-grade elementary school students. The data used in this development research are qualitative and quantitative. The results of the validity test of the learning video obtained results: content experts obtained 93.33% results with very good qualifications, learning design experts obtained 89.09% results with good qualifications, learning media experts obtained 92.5% results with very good qualifications, and individual trials obtained a result of 98.6% with very good qualifications. Based on the results of the data analysis, it can be stated that this instructional video media is suitable for use in the theme of our friend's environment, the human sub-theme, and the fifth-grade elementary school environment.

1. Introduction

The world is currently wary of the spread of a virus known as the coronavirus. Coronaviruses are part of a family of viruses that cause illnesses ranging from the flu to more severe illnesses such as Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS-CoV) (Mona, 2020). This coronavirus attacks the respiratory system, such as the nose, throat, and lungs (Kristiningsih,

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2020). During the Covid-19 pandemic, the education system turned into new learning because direct or face-to-face learning was stopped to minimize the spread of the coronavirus (Azubuike et al., 2021). In response to preventing students' inability to learn because in-person or face-to-face learning is discontinued, schools turn to online learning (Jogezai et al., 2021). Online learning uses the internet network with accessibility, connectivity, flexibility, and the ability to bring up various learning interactions (Firman & Rahayu, 2020). Online learning is learning that is carried out using the internet to distribute knowledge (Syarifudin, 2020). This learning can be done anytime and anywhere without being bound by time and without face to face (Syarifudin, 2020). Current conditions are urgent for adaptation and innovation related to using available technology to support the learning process (Ahmed et al., 2020). Online learning will certainly be less meaningful without the synergy of appropriate learning strategies and methods (Arizona et al., 2020). By utilizing technology in learning, it is hoped that the delivery of learning will be effective (Marbun, 2021)

The readiness of school infrastructure, especially teachers, during the Covid-19 pandemic, such as internet access and learning media, requires more attention (Tang et al., 2021). Learning media is one component that has an important role in learning. Learning media, such as learning videos that use audio and visuals, can make lessons interesting and not monotonous so that students will feel attracted by learning (Putri & Dewi, 2020). Based on the results of observations and interviews, it was found that the available media were still very limited. The limitations of this media cause the rare use of media in the learning process. Coupled with the current Covid-19 pandemic, students are not optimal in learning. Learning that is done online is more dominant using assignment techniques only. So that students do not have difficulty learning the water cycle topic material, they should use interesting and easy learning media to be accessed by students online. If these problems are not immediately addressed, students will not understand the abstract learning given, and students will not be ready to participate in learning.

The solution that has been done is to make learning video media. The existence of video media is feasible to use and can improve elementary school learning outcomes. This is evident from research it can be concluded that the learning videos that have been developed are worthy of further testing to see the effectiveness in learning (Mutia et al., 2018), which shows that character education-oriented learning videos are effective in improving learning outcomes (Wisada et al., 2019), learning videos are feasible to use in the learning process (Yudiyanto et al., 2020), learning videos can help students understand algebraic structure material (Aziz, 2020), because it contains cooperative learning methods, research conducted by (Yuanta, 2019) it can be concluded that the development of this learning video media is effective for use in the learning process, research conducted by (Ilsa et al., 2020) which shows that the learning video is valid, practical and effective, research conducted by (Ariani et al., 2020) which shows that social studies learning videos containing tests for fifth grade elementary school students are valid and reliable, and research conducted by (Nuritha & Tsurayya, 2021) which shows that learning videos are effectively used as media or student aids in learning mathematics that can increase Student learning independence.

Learning videos are one of the creative learning media that can attract students' attention in learning activities. Learning videos can support students to understand the delivery of material that is more meaningful or less verbal, adds a new dimension in learning that presents moving images, which are seen in real terms, and can overcome the limitations of time and space (Parlindungan et al., 2020; Radiusman & Simanjuntak, 2020: Yuanta, 2019). Learning videos can optimize active learning for students and provide great variability in terms of image quality of in-plane objects and movement artifacts (Hong et al., 2021; Ilsa et al., 2020; Kawka et al., 2021). Learning videos can help to understand the learning material and repeat the material if you forget (Nuritha & Tsurayya, 2021). Learning videos are appropriate if used in science learning, especially in the water cycle process, because the teacher may not clearly describe the cycle process. Therefore, the teacher needs media or tools to easily describe it to students to understand the water cycle process easily. With this learning video, it is hoped that students can increase interest in learning, motivate in the learning process. Students get a real picture of the concept being studied and become an advantage because students are indirectly invited to continuously and continuously understand the concept in real terms continuously and continuously. practice self-ability in order to get better and make students more independent in the learning process. The purpose of this research is to create the development of learning videos on the theme of our friend's environment, the sub-themes of humans and the environment, especially on the content of science lessons, the topic of the water cycle that has been tested for feasibility. With this research, it is hoped that it can help learning on the topic of the water cycle to be carried out effectively and be able to help teachers and students in the learning process in various learning situations.

2. Method

Research on developing learning videos on the theme of our friend's environment, sub-themes of humans, and the fifth-grade environment of elementary school use the ADDIE model (analysis, design, development, implementation, and evaluation) as a reference. Several stages were carried out to develop learning videos: analysis, design, development, implementation, and evaluation. The analysis phase consists of analyzing student characteristics, analyzing content and facilities, and analyzing the curriculum. The design stage was done by learning video design from determining the overall media concept until the learning video is complete. The development stage was carried out by developing the design that has been made. In the implementation phase, validation activities are carried out through expert reviews by content experts, learning design experts, and learning media experts and carrying out product trials through individual trials. The evaluation stage is carried out by conducting evaluation activities, namely through formative evaluation activities. A formative evaluation was carried out to measure or assess learning products through reviews of experts (material content experts, learning design experts, and learning media experts) and product trials through individual trials to determine the validity of the learning videos that have been developed. Then the review results are analyzed, then a product revision is carried out on the learning video based on reviews from experts and product trials in individual trials.

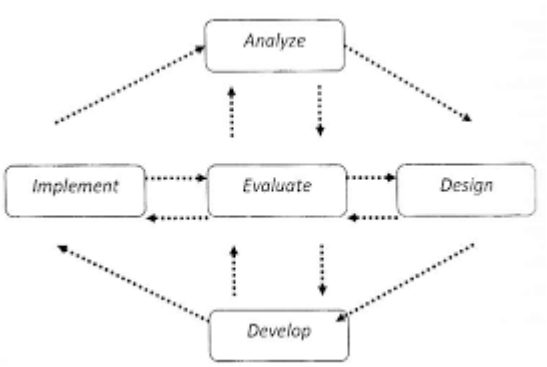


Figure 1. ADDIE Development Model (Source: Tegeh, 2014)

The research subjects for the development of instructional videos are content experts, instructional design experts, learning media experts, and individual trials. At the same time, the object of research is the validity of learning video media. The data used in this development research are qualitative and quantitative. The method used in data collection is the distribution of questionnaires. This study used a questionnaire instrument. Questionnaires were used to collect data from evaluations of content experts, instructional design experts, instructional media experts, and fifth-grade elementary school students. The lattice of the instrument validity of learning videos on the theme of our friend's environment, the sub-themes of humans and the environment, are listed in Table 1, 2, 3, and 4.

Table 1. Instrument Validity of Content Expert Learning Videos

No	Aspect	Indicator	Number
1	The structure of the material presented is right	a. Conformity of indicators with basic competencies	
		b. Conformity of learning objectives with indicators	1
		c. The suitability of the material with the learning objectives	2
			3
2	The accuracy of the material in it	a. The truth of the material presented	4
		b. The accuracy of the material delivered is following the learning objectives	5
		c. Up-to-date material presented	6
		d. The accuracy of writing terms on the material	7
3	The grammar presentation is correct	a. The accuracy of the grammar used	8
		b. Spelling accuracy on the material	9
		c. The accuracy of writing terms on the material	10
4	Punctuation is presented correctly	a. The accuracy of the use of punctuation in the material	11
5	The level of difficulty of	a. The level of the breadth of the material according	12

No	Aspect	Indicator	Number
	the material adapted to the characteristics of the user	to the characteristics of students b. Early material capable of relating to students' initial knowledge	13
		c. The depth of the material presented	14
		d. Illustrations (examples) in learning media can clarify the material presented	15
Total			**15**

(Source: Allessi dan Trollip, 2001)

Table 2. Instruments for video validation of learning design experts

No	Aspect	Indicator	Number
1	Accuracy	a. The learning objectives already use the ABCD format b. The suitability of the video with the characteristics of students	1
		c. The suitability of the material with the learning objectives	2 3
		d. The material in the learning video is packaged in a coherent way	4
2	Clarity	a. The language used is easy for students to understand	5
		b. Clarity of description and discussion	6
		c. Clarity of content provided	7
3	Interest/Attention	a. Videos motivate students' interest in learning	8
		b. Increase students' attention to learning	9
4	The quality of the test and its assessment	a. Consistency of evaluation with learning objectives	10
5	It can have an impact on students	a. Facilitate students' understanding of the material	11
Jumlah			**11**

(Source: Suprianta dan Mochamad, 2009)

Table 3. Instruments for video validation of learning media experts

No	Aspect	Indicator	Number
1	Visual quality	a. Interesting cover (youtube) to package learning videos	1
		b. The suitability of the cover visualization (youtube) with the content in the media	2
		c. The attraction of the displayed moving image (video)	3
		d. Writing clarity	4
		e. suitability of color	5
		f. Layout	6
		g. Image clarity	7
		h. Background image suitability	8
2	Voice clarity *a.* Narration *b. Sound Effect*	a. Narrator's voice clarity b. Appropriate use of Sound Effects	9 10
3	Video presentation suitability	a. The videos are presented according to the characteristics of students	11
		b. Suitability of videos with learning objectives	12
		c. Ideals duration with targets	13
		d. Interactive presentation	14
4	Creative in expressing ideas and creativity	a. The attraction of creativity in delivering messages	15
		b. Flexibility in terms of providing time, place, teachers, and teaching materials	16

No	Aspect	Indicator	Number
Total			**16**

(Source: Walker dan Hess dalam Arsyad, 2011)

Table 4. Instruments for validation of individual trial learning videos

No	Aspect	Indicator	Number
1	Attract students	a. The attractiveness of packaging (cover) youtube	1
		b. The attractiveness of the learning video display	2
		c. The attractiveness of the displayed image	3
		d. Clarity and attractiveness of colors presented	4
2	Material presentation	a. The material presented is clear	5
		b. The material presented is easy to understand	6
		c. The examples given in the material are easy to understand	7
3	Increase student attention	a. Learning videos can increase attention	8
4	Motivating	a. Learning videos can motivate learning	9
5	The sound clarity	a. Narrator's voice clarity	10
		b. Music compatibility	11
Jumlah			**11**

The data in this study were processed using quantitative descriptive analysis techniques. In this study, descriptive analysis was used to process qualitative data obtained through questionnaires in scores using the conversion level of achievement on a scale of 5 as follows.

Table 5. Conversion of the level of achievement on a scale of 5

Achievement Level (%)	Qualification	Description
90-100	Very good	No need to revise
75-89	Good	Slightly revised
65-79	Enough	Revised sufficiently
55-64	Less	Many things have been revised
1-54	Bad	Repeat in making products

(Source: Tegeh & Kirna, 2010:101)

3. Result and Discussion

Results

This research was carried out to develop learning videos for fifth-grade elementary school students. Developing learning videos for fifth-grade elementary school students go through several development procedures: analysis, design, development, implementation, and evaluation. The analysis phase was carried out through several stages: analysis of student characteristics, analysis of content and facilities, and curriculum analysis. Analysis of student characteristics was carried out to analyze the attitudes and behavior of fifth-grade elementary school students who will be the target of learning videos to illustrate in designing learning videos following student characteristics. Content and facility analysis carried out by selecting materials relevant to the product to be developed by the researcher. Content and facility analysis was conducted by conducting observations and interviews regarding the facilities owned by the school and the student learning environment. This analysis found that the media developed as a learning video with material limitations, namely the content of fifth-grade science lessons, with restrictions on the material's content, namely the water cycle and its impact on the earth and the survival events of living things. Curriculum analysis was carried out to analyze basic competencies and indicators related to water cycle learning, which will be used as guidelines in developing learning videos.

Activities carried out at this design stage include making learning videos, designing storylines, making scripts, designing video opening covers, and recording videos. The video was made by recording while explaining the material with a tripod, capcut, greenscreen, and gadgets. To produce interesting videos, you need an application that helps form a Kinemaster application with a 16:9 ratio. In the learning

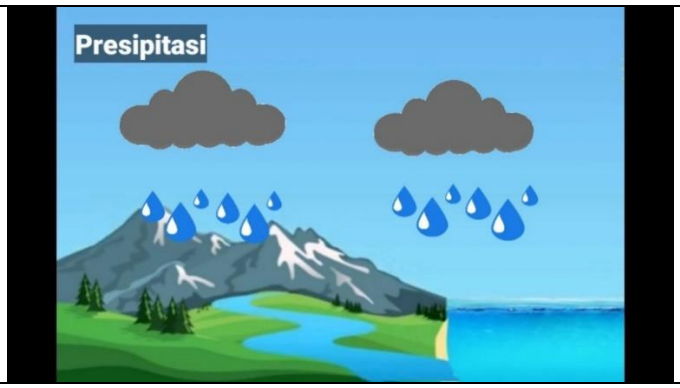
video, images, audio, and background selection are interesting for students. The storyline design is presented in Table 5.

Table 5. Design of learning video storyline

No	Visual	Audio
1	Animated images of the process of evaporation (evaporation), precipitation (transpiration), condensation (condensation), precipitation, and the occurrence of the water cycle	This scene describes the process of evaporation (evaporation), precipitation (transpiration), condensation (condensation), precipitation, and the occurrence of the water cycle.

The learning videos developed consisted of opening videos, opening lessons, the core to deliver material, closing lessons, and closing videos on learning videos. The opening video is designed with a color composition with student appeal, attractive images and is following the appeal of fifth-grade elementary school students. At the video's opening, the title of the learning video and Ganesha Education University is also shown at 00.01-00.05 minutes. The lesson's opening is designed by opening the lesson in greeting students, introducing themselves, and giving students apperceptions at 00.19-01.29 minutes. The learning core was designed by delivering learning materials located at 01.33-08.19 minutes. The closing of the video is designed by displaying a thank you sentence and showing the identity, names of lecturers, experts, video-making support tools, image sources, and music sources. The closing of the learning video is at 10.40-11.04 minutes. Development stages are presented in Table 6.

Table 6. Stages of developing learning videos

No	Description	Image
1	Figure 2. Opening lesson	
2	Figure 3. Learning content	

No	Description	Image
3	Figure 4. Closing of learning	

At the implementation stage, the product trial stage was carried out by users (students). Product trials carried out to students were only up to individual trials. Before students use the product, the product must be validated or reviewed by experts, including content experts, learning design experts, and learning media experts. The purpose of the validation is to determine the feasibility of the product being developed. At the evaluation stage, evaluation activities are carried out, namely through formative evaluation activities. Formative evaluation measures or assesses learning video products through reviews of experts (material content experts, learning design experts, and learning media experts) and product trials through individual trials. The evaluation carried out refers to the suggestions, input and comments given. The evaluation is done, of course, to make the product better. The suggestions for input and comments obtained from the media validity test listed in Table 7.

Table 7. Experts' suggestions and comments on individual trials

No	Suggestions and Comments
1	Indicator revised according to input
2	On the definition of the water cycle: “peputaran” revised “perputaran”
3	The title of the water cycle is in all capital letters, and the size is enlarged
4	04.55-05.36 need to be equipped with illustrations, not just narration from the teacher.
5	The opening page to make it more interesting
6	Serve the credit title at the end of the video
7	Explanations that are too verbal to be supported by pictures
8	Nice video. I like it
9	The material is easy to understand, and the video is good
10	Interesting videos I like and easy to understand

The validity test results of instructional video media were reviewed from four subjects consisting of 1) material content expert test, 2) learning design expert test, 3) learning media expert test, and 4) individual trial on fifth-grade elementary school students. The validity of the development of learning videos in more detail can be seen in the following table.

Table 9. Results of Learning Video Validity

No	Trial Subject	Validation Results (%)	Description
1	Content expert test	93,33%	Very good
2	Learning design expert test	89,90%	Good
3	Learning media expert test	92,5%	Very good
4	Individual trial	98,6%	Very good

From table 9 above, it is known that the results of the validity of the learning video media experts get 93.33% with very good qualifications. Learning design experts get 89.90 with good qualifications. Learning media experts get 92.5% results with very good qualifications. Individual trials obtained 98.6% results with very good qualifications. However, this does not rule out the possibility of further revisions.

Discussion

The results showed that the learning videos for fifth-grade elementary school students developed in this study were valid and feasible. It can be seen from the material in the learning video is following the characteristics of students. Learning videos for fifth-grade elementary school students were developed to attract students' attention to focus their concentration on the learning videos. As expressed by (Putri & Dewi, 2020; Seo et al., 2021; Yoon et al., 2021), learning videos can be an effective learning tool for students and help students easily understand learning materials. So, even through online learning, students can still learn by using learning video media. Learning videos have the advantage that they contain audio and visual elements (audio-visual media) so that directly and simultaneously, students learn to use two senses at once, namely the senses of hearing and sight. (Jundu et al., 2020).

This research developed using the ADDIE method (analysis, design, development, implementation, and evaluation). The steps of ADDIE development research in this study started from the first stage. The analysis stage consisted of analyzing student characteristics, analysis of content and facilities, and curriculum analysis. First, the analysis of student characteristics carried out using interviews and observations with fifth-grade teachers. It obtained information that fifth-grade elementary school students were classified as active if they studied using media assistance. This analysis determined that the media that can help students learn is media in learning videos. In line with (Gulo et al., 2021; Tarchi et al., 2021), learning videos can increase students' interest and enthusiasm in learning activities with subtitles providing additional demands on learning. Both content and facility analysis carried out using interviews and observations about the facilities owned by the school. So, the content and facilities analysis found that the media to be developed is learning video media. Learning videos can provide a real picture of learning activities and attract students' attention (Lelievre et al., 2021; Toh & Kirschner, 2020). The three curriculum analyses carried out to analyze Basic Competencies, Indicators related to water cycle learning, which will be used as guidelines for learning video media.

The second stage is the design stage, the design stage is the development of learning designs and teaching designs, so development needs to design something with what is being researched (Rayanto & Sugianti, 2020). At this stage, the planning in question is making learning videos beginning with designing the storyline, making the script, designing the opening cover of the video, and the tools and materials used to record the video. The video was made by recording yourself while explaining the material with the aid of a tripod, capcut, greenscreen, and gadgets. To produce interesting videos, you need an application that helps form a kenemaster application with a 16:9 ratio. In the learning video, images, audio, and background selection are interesting for students. The third stage is the development stage. The development referred to in this development is developing something with the development carried out (Ryanto & Sugianti, 2020). At this stage of development, the video begins to work according to the designed design. The video developed in this research video is divided into three parts: opening, content, and closing. The opening of the learning video begins with an intro, greeting, and introducing yourself. The content section starts from learning materials about the water cycle process and the impact of the water cycle on events on earth, and the survival of living things. The closing part consists of material conclusions, giving reflection to students, giving assignments, closing greetings, and outro.

The fourth stage is the implementation stage. The implementation stage is a research product produced, not a product that has been compiled and must be tested through several scientific stages (Ryanto & Sugianti, 2020). At the implementation stage, the steps taken are consulting the supervisor after getting improvements, then proceeding with validation activities through content expert reviews, learning designs, learning media, and product trials through individual trials. One lecturer carried out the content expert trial by giving a questionnaire assessment sheet. One lecturer carried out the learning design expert trial by providing a questionnaire assessment sheet. One lecturer carried out the learning media expert trial by providing a questionnaire assessment sheet and product testing through the test. Three students carried out individual trials by providing a questionnaire assessment sheet.

The fifth stage is the evaluation stage. The evaluation stage was carried out after the four initial stages have been carried out (Ryanto & Sugianti, 2020). At the evaluation stage, evaluation activities were carried out, namely formative evaluation. Formative evaluation carried out to assess learning products through content expert reviews, learning designs, learning media, and product trials through individual trials. The results of obtaining scores from the content expert test activities showed that the percentage of values converted with a scale 5 conversion table showed the level of achievement of the content expert test results was 93.33% with very good percentage category qualifications. The value obtained from the learning design expert test showed that the percentage of values converted with a 5 scale conversion table showed the level of achievement of the learning design expert test was 89.90%, with a good percentage category qualification. The learning media expert test found that the percentage of values converted with a scale 5 conversion table shows the level of achievement of the media expert test results is 92.5% with very good percentage category qualifications. The results of obtaining values from product

testing activities through individual trials found that the percentage of values that have been converted with a scale 5 conversion table shows the level of achievement of individual trial results is 98.6% with very good percentage category qualifications. This media is feasible to use because this media has the advantage of learning (audio, visual, and kinesthetic), which can help fifth-grade elementary school students understand learning better

4. Conclusion

This development research resulted in learning video media products on science lessons for fifth-grade elementary schools developed using the ADDIE method. Based on the results of the validity conducted by experts and individual trials, it can be stated that this learning video media product is suitable for use in the fifth-grade science content of elementary school.

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