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Video Learning Oriented to the Value of Caring for the Environment

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ABSTRAK

Perkembangan arus teknologi di era globalisasi mengaharuskan guru untuk memanfaatkan berbagai kemajuan teknologi guna meningkatkan hasil belajar siswa. Hanya saja kenyataan dilapangan menunjukkan bahwa guru masih kesulitan untuk mengembangkan sebuah media yang berkaitan dengan penggunaan teknologi. penelitian ini bertujuan untuk mengembangkan video pembelajaran berorientasi nilai karakter peduli lingkungan pada muatan IPA kelas V Sekolah Dasar. Penelitian ini tergolong kedalam jenis penelitian pengembangan dengan menggunakan model pengembangan ADDIE. Subjek penelitian yaitu 2 ahli materi, 2 ahli desain pembelajaran dan 2 ahli media pembelajaran. Subjek uji coba yaitu 2 praktisi/guru, dan siswa kelas V yang berjumlah 10 siswa. Metode pengumpulan data yang digunakan yaitu observasi, wawancara dan kuesioner, dengan instrument pengumpulan data berupa rating scale. Teknik analisis yang digunakan yaitu analisis deskriptif kualitatif dan kuantitatif. Hasil penelitian menunjukkan bahwa penilaian yang diberikan oleh ahli isi mata pelajaran yaitu 3,84 (sangat baik), ahli media pembelajaran yaitu 3,83 (sangat baik), dan ahli desain pembelajaran yaitu 3,86 (sangat baik). Hasil uji respon praktisi yaitu 3,60 (sangat baik) dan respon siswa yaitu 3,76 (sangat baik). Sehingga berdasarkan hasil tersebut dapat disimpulkan bahwa media video pembelajaran berorientasi nilai karakter peduli lingkungan pada muatan IPA materi siklus air kelas V Sekolah Dasar dinyatakan layak untuk dikembangkan dan digunakan dalam proses pembelajaran.

ABSTRACT

The development of technological flows in the era of globalization requires teachers to take advantage of various technological advances to improve student learning outcomes. It is just that the reality on the ground shows that teachers still find it difficult to develop media related to the use of technology. This study aims to develop a learning video oriented to the value of caring for the environment in the fifth-grade science content of Elementary School. This research belongs to the type of development research using the ADDIE development model. The research subjects are two material experts, two learning design experts, and two learning media experts. The test subjects were two practitioners/teachers and ten fifth-grade students. The data collection methods used are observation, interviews, and questionnaires, with the data collection instrument as a rating scale. The analytical technique used is descriptive qualitative and quantitative analysis. The results showed that the assessment given by the subject content expert was 3.84 (very good), the instructional media expert was 3.83 (very good), and the learning design expert was 3.86 (very good). The results of the practitioner's response test are 3.60 (very good), and the student response is 3.76 (very good). So based on these results, it can be concluded that the value-oriented learning media for environmental care characters in the science content of the water cycle material for class V Elementary School is feasible to be developed and used in the learning process.

1. INTRODUCTION

Education is an aspect that can broaden one's horizons. Through education, a person can increase the potential of superior human resources. The purpose of implementing education is the changes that occur in a person for the better and development in social life (Darmaji et al., 2019; Kaur et al., 2020; Yıldırım, 2021). In

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education, there is a learning process to achieve noble goals. Learning is an activity that causes behavior change for the better (Campbell et al., 2017; Hermino, 2020; Thoyyibah et al., 2019). Learning activities are aspects of formal education activities in conveying information to students directedly (Hill et al., 2020; Samsudin et al., 2019; Shestak et al., 2020). If a person changes for the better, the learning goal is achieved. It causes the learning process to be conducive and generates motivation by packaging it in an attractive way (Ibad et al., 2020; Pahlawati & Sofyan Zain, 2021). The implementation of learning requires creative and new thinking. Good learning begins with four steps: determining the topic, sorting activities, recognizing opportunities, and assessing (Nikmah et al., 2019; Sulistyawati, 2020). These four components are a reference for learning activities to be well organized.

Currently, the times have changed learning activities for the better than before. It can be seen in the 2013 curriculum with the thematic learning concept (Kurniaman & Noviana, 2017; Setiawan & Kumala, 2020). Thematic learning is integrated learning that links several subjects and aims to provide a meaningful experience (Desyandri et al., 2019; Laksana et al., 2019; Pratama et al., 2020). Applying this thematic learning invites students to understand the environment because, in learning, more emphasis is placed on aspects of student life (Syafrijal & Desyandri, 2019). Learning experiences make learning activities positive and effective. In thematic learning activities, teachers can design effective learning through method strategies or media that become learning tools, especially for elementary school students (Arsyad & Sulfemi, 2018; Aziz et al., 2017). Moreover, elementary school students tend to have unique characteristics such as high curiosity and an inability to think abstractly (Arina et al., 2020; Asrial et al., 2020; Rigianti, 2020). So that to meet learning needs and help the learning process, teachers need tools in the form of media that can facilitate the learning process and improve the experience and activeness of student learning (Gading & Kharisma, 2017).

However, there are still many who have difficulty making creative media. Previous research also stated that teachers have difficulty making creative media that supports learning (Jayanta & Cahyani, 2021; Priantini & Widiastuti, 2021). Other research also states that teachers find it difficult to create digital media that students need when implementing online learning (Andriah & Amir, 2021; Udayani et al., 2021). This lack of learning media certainly has an impact on understanding science learning because it requires media as a means of distributing material. The results of observations made at the elementary school of Gugus II Kecamatan Gerokgak found that the first teacher was less able to develop interesting media to the fullest. Second is teacher-centered learning. Third, the learning process does not encourage students to think creatively. The interviews also found that students often feel bored during learning activities because of the lack of innovative learning activities. In addition, students also stated that the water cycle learning material is very difficult to understand because it is very abstract. In addition, learning the value of caring for the environment has not been maximally implemented in science learning. It certainly has an impact on student learning outcomes which are very low.

One of the efforts that can be made to overcome these problems is by developing creative and innovative learning media. Media is a tool used to clarify a meaning in teaching materials and concretize abstract material (Moniaga et al., 2019; Sumardi et al., 2021; Suryawan et al., 2021; Tanti et al., 2021; Wikanda et al., 2021). In developing media, a design that is adapted to the student's learning style is needed so that learning activities become more varied (Aeni & Yusupa, 2018; Priantini & Widiastuti, 2021). Using appropriate and well-packaged media can attract and increase interest in learning (Cahyani et al., 2021; Prehanto et al., 2021). Teachers must know all the characteristics of students in developing creative media that can be used properly (Lubis & Hidayat, 2021; Park et al., 2020). However, in media development, it is necessary to pay attention to the current condition; learning activities are carried out online, so digital media is needed (Astutik et al., 2021; Lacka et al., 2021). Digital media that can facilitate student characteristics are learning videos.

The application of video media can be used repeatedly and played back by students to simplify and clarify the material studied (Febriani, 2017; Pamungkas et al., 2018). Students with slow intelligence can also use this media to repeat material so that their understanding becomes mature easily. In addition, this media is designed by combining audio and visual elements that will help students understand the material in the form of theoretical procedures, principles, or concepts (Permatasari et al., 2019; Prehanto et al., 2021). Learning video media has several interesting elements, such as animation, pictures, and music, that can attract students' interest in learning (Ayu et al., 2020; Nurdin et al., 2019). In addition, the use of video media also makes it easier for students to learn anywhere, and the material looks real (Sudarma et al., 2020; Zhang et al., 2022). The advantage of video media is that the material delivered by the teacher can be received by students evenly. Second, clarifying a process, overcoming space limitations, and being more realistic (Sarnoko et al., 2016). The development of this video is oriented to the character's values of caring for the environment. The character of caring for the environment today is very important for students and important to apply in students' lives. Environmental care character values can be formed through the learning process to create a sense of responsibility for students towards the environment (Lepiyanto & Pratiwi, 2015; Zain & Gunawan, 2019). Students are expected to be able to preserve the environment properly to prevent unwanted things from happening in the environment.

Several studies have previously stated that learning videos have unique characteristics as media to attract attention (Kang & van Es, 2019; Rahayu et al., 2021). Other studies also state that video media is the most effective means of transferring information to students (Ario, 2019; Ponza et al., 2018; Soeoed et al., 2018). Another finding also states that character values must still be inserted in learning activities to improve and grow

the character of students who are superior and good (Purwanti, 2017; Yanti & Yusliani, 2020). Based on some of the results of these studies, it can be said that learning videos are the most effective media used to increase student character values. Only in previous research has there been no connection regarding the development of learning video media oriented towards environmental care character values in elementary school's fifth-grade science content. So this research is focused on the study of developing a learning video oriented to the value of environmental care characters in the fifth-grade science content of elementary schools.

2. METHOD

This research is classified as development research using the ADDIE model. The ADDIE development model consists of 5 stages: analysis, design, development, implementation, and evaluation (Putri et al., 2020). The research was conducted in SD Gugus II, Kecamatan Gerokgak, with research subjects, namely two material experts, two learning design experts, and two learning media experts. The experiment subjects were two practitioners/teachers and ten fifth-grade students. Data collection in the study was carried out using the methods of observation, interviews, and questionnaires. Observation and interview methods are used to find initial school data to get the data they want immediately. In contrast, this questionnaire method can easily reach quite large respondents. The data collection instrument used is the rating scale. The research instrument grid is presented in Tables 1, and Table 2.

Table 1. The Test Instrument of Subject Matter Experts

No	Aspect	Indicator
1.	The structure of the material presented is appropriate	1. The suitability of learning indicators with basic competencies. 2. Material selection is correct and following Basic Competencies 3. The relevance of the material contains facts 4. The suitability of the learning objectives with the learning indicators. 5. The suitability of the material with the learning objectives. 6. Completeness of the material presented 7. Part accuracy and material coherence
2.	Material accuracy	1. The truth of the material presented. 2. The accuracy of the material presented. 3. The novelty (update) of the material presented. 4. The material's presentation accuracy is based on the existing facts.
3.	Correct grammatical presentation	1. Compliance with language rules. 2. The correct use of spelling in the material. 3. The accuracy of the use of terms in the material.
4.	The difficulty level of the material is adjusted to the characteristics of the students	1. The material development level according to students' understanding characteristics. 2. Depth level of material presented. 3. Illustrations in learning media can develop the material in the student handbook
5	Caring attitude towards the environment	1. Have curiosity, critical and care for the environment 2. Have awareness to protect the environment

(Modified from Wisada et al., 2019)

Table 2. Experimental Instrument of Learning Media Experts

No	Aspect	Indicator
1.	Visual Quality	1. The attractiveness of the animation shown. 2. The suitability of the media covers visualization of the content in the media. 3. Color match in pictures 4. The attractiveness of the graphics displayed. 5. The attractiveness of the displayed moving image (video). 6. Brightness adjustment in video
2.	Camera angle capture with image composition	1. The accuracy of the video viewing angle.
3.	Voice clarity	1. The clarity of the learning narrator's voice 2. The suitability of using Sound Effects in learning. 3. Regularity with background music.

No	Aspect	Indicator
4.	Video presentation suitability	1. The videos are presented according to the characteristics of the students. 2. The suitability of the video with the learning objectives. 3. The ideal duration with the characteristics of the learning objectives
5.	Creative in making ideas and creativity	1. The attractiveness of creativity in the delivery of messages. 2. Flexibility in providing time, place, teachers, and teaching materials.

(Modified from Wisada et al., 2019)

Testing the validity of the research instrument was carried out by experts using the Gregory formula. The data obtained were then analyzed using qualitative and quantitative descriptive analysis techniques. Qualitative descriptive statistical analysis techniques are used to process and review the data from the expert review. Quantitative descriptive analysis techniques are needed to determine the high and low quality of research on the development of learning video media oriented towards environmental care character values. The average score obtained is converted using a four-scale conversion.

3. RESULT AND DISCUSSION

Result

This study developed a learning video media oriented to the value of environmental care characters in the science content of the fifth-grade elementary school water cycle material using the ADDIE development model. However, due to the limited time for the implementation, the research was only carried out during the stage of media development. The results of each stage of development are as follows: first, the results of the analysis stage show that teachers are less able to develop learning media with maximum interest. Hence, the learning process tends to be teacher-centered. In addition, the teacher does not encourage students to think creatively during the learning process. The interviews also found that students often feel bored during learning activities because of the lack of innovative learning activities. Students also stated that the water cycle learning material is very difficult to understand because it is very abstract. It then shows that learning environmental care character values has not been maximally implemented in science learning. The results of the curriculum analysis, namely Basic Competencies and indicators, are presented in Table 3.

Table 3. Basic Competencies and Indicators

Basic Competencies	Indicators
3.8. Analyze the water cycle and its impact on events on earth and the survival of living things	3.8.1 Analyzing the process of the water cycle 3.8.2 Comparing the stages of the water cycle 3.8.3 Relating the influence of human activities on natural events and processes of the water cycle 3.8.4 Summarizing the impact of the water cycle on events on earth and life

The second stage is the design stage, which is carried out by designing a learning video oriented to the value of caring for the environment. The design of the instructional video media made is material design and media design. The material's design is arranged according to the main objective: developing a learning video media. In media design, learning video media is made by designing using PowerPoint and Adobe Premiere Pro with a 16:9 ratio with a resolution of 1280x720p and equipped with interesting animations, images, and audio. The results of the media design are presented in Figure 1.

Figure 1. The Design of a Value-Oriented Learning Video for Environmental Care Characters

The third stage is the development stage. This learning video media oriented toward environmental care character values has a duration of 14.42 minutes which was designed using PowerPoint and Adobe Premiere Pro applications with a ratio of 16:9 and a resolution of 1280x720p. The learning video media developed comprised the opening, core, and closing sections. The opening section consists of an intro, cover, greeting students, delivery of Basic Competencies and Indicators, and delivery of learning objectives. The intro on this media displays the title and the Undiksha logo on the media cover. This activity of greeting students is carried out so that students are enthusiastic about learning, introduce themselves, and invite them to pray before studying to keep instilling spiritual values. The core part of this learning video media oriented to the value of caring for the environment character explains and explains the water cycle material on the theme of 8 fifth graders of elementary school oriented to the value of caring for the environment. The closing section of this learning video media displays the learning material's conclusions and practice questions and closes the lesson. The results of developing value-oriented learning videos for environmental care characters are presented in Figure 2.

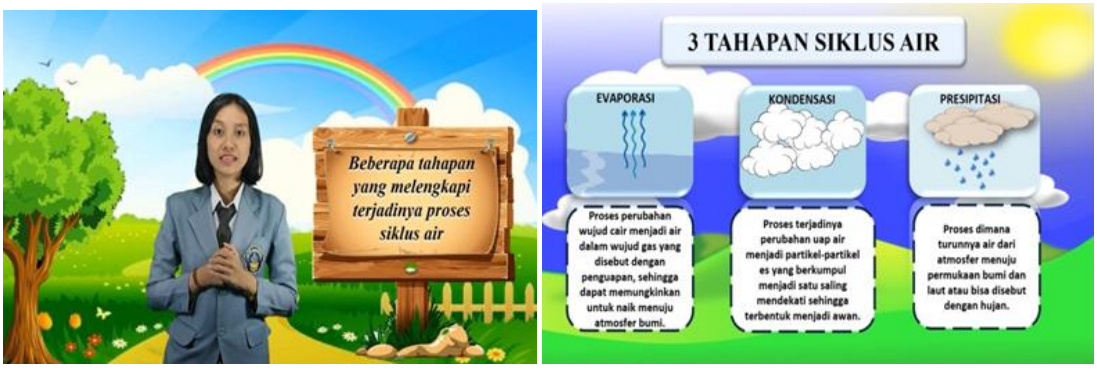

Figure 2. Value-Oriented Learning Video for Environmental Care Characters

The Value-Oriented Learning Videos of Environmental Care Characters are then assessed. The assessment given by the subject content expert is 3.84 (very good), the learning media expert is 3.83 (very good), and the learning design expert is 3.86 (very good). The average score on learning video media oriented towards environmental care character values in the water cycle material science content is in the range of × ≥ 3 when converted to a four-scale conversion guideline, indicating that all aspects of the environmental care character value-oriented learning video media on the cycle material science content water have very good qualifications. The results of the practitioner's response test are 3.60 (very good), and the student response is 3.76 (very good). It was concluded that the learning video media oriented to the value of environmental care characters in the science content of the fifth-grade elementary school water cycle material was feasible to be used.

Discussion

The learning video oriented to the value of caring for the environment in science content is declared feasible to use due to various factors. First, the video-oriented to the value of caring for the environment in science content is declared feasible to use because it makes it easier for students. Media can be said to be a tool that clarifies meaning (Tanti et al., 2021; Wikanda et al., 2021). This video stimulates students' thoughts and feelings so that students understand the material easily. The use of this media helps students explore the learning material because it explains the material correctly. Videos that are presented properly increase interest and understanding (Agustien et al., 2018; Mutia et al., 2018; Ponza et al., 2018). This media also adapts to the characteristics of students to help students understand the material more quickly. Designing media according to student characteristics is very helpful in understanding student learning (Febriani, 2017; Jayanta & Cahyani, 2021; Nonthamand, 2020). This video presents images and animations that clarify the content. In addition, the video also explains the material and uses appropriate grammar to make it easy to understand. The language used in the video influences students' later understanding (Muna et al., 2017; Pamungkas et al., 2018; Zhang et al., 2022). It causes the use of language to have a major influence on learning.

Second, the video-oriented to the value of environmental care characters in IPA content is declared feasible to be used to increase motivation. This media is developed according to the situation and conditions so that it has an impact on the suitability of the media to the needs. The use of video media can help show concrete objects that cannot be seen by students directly, thereby increasing learning motivation (Melinda et al., 2018; Prehanto et al., 2021). The advantage of the video-oriented environmental care character values is that it is flexible and can be used by anyone. The uniqueness presented in the video can also stimulate student learning motivation (Muskania et al., 2019; Nurdin et al., 2019; Permatasari et al., 2019). Media that uses technology assistance is preferred by students and can increase student learning motivation (Pravitasari & Yulianto, 2018; Purnamasari & Herman, 2017; Weng et al., 2019). This video also contains interesting pictures that attract students' interest. The material presented in the video also encourages students always to protect nature to

increase students' motivation to protect nature. It can be seen from students being able to practice it to get used to maintaining cleanliness and health in their environment and not littering.

Third, the video-oriented to the value of environmental care characters in science content is declared feasible to be used to make learning interesting. The video's beauty lies in how it is packaged uniquely and clearly. The clarity and uniqueness of the media will attract students' attention (Putri et al., 2020; Tegeh et al., 2019; Ulfah & Soenarto, 2017). In addition, this video uses a character value approach to care for the environment, making students more interested in learning. The value of caring for the environment is a must for every student (Lepiyanto & Pratiwi, 2015; Zain & Gunawan, 2019). The video presents the value of caring for the environment that can foster students' sensitivity to keep the environment clean and comfortable. Learning like this is very important, so students love nature and the environment more. Learning activities like this that relate to the real life of students will certainly make learning more interesting (Estuwardani & Mustadi, 2016; Mardiyah, 2017; Purwanti, 2017).

The results obtained in this study are in line with the results of previous studies, which also revealed that the media could be used in obtaining knowledge about certain learning (Moniaga et al., 2019; Sumardi et al., 2021; Suryawan et al., 2021). Another finding states that learning videos have many functions and are in great demand by students (Ayu et al., 2020; Nurdin et al., 2019). Other findings also state that the value of caring for the environment creates a sense of responsibility for students towards the environment (Lepiyanto & Pratiwi, 2015; Zain & Gunawan, 2019). So based on some of the results of these studies, it can be said that character value-oriented videos are very acceptable to students equally. The implication for developing this video media is that the value-oriented learning media for environmental care characters can be used. This media can be utilized online or in person. Learning using this media gives an interesting impression to students.

4. CONCLUSION

The video oriented to the value of caring for the environment in the science content gets very good qualifications, so it is feasible to develop and use in the learning process. These results can be seen from the validity testing of media and subject content experts.

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