Video Scribe-Based Instructional Video Media in Fifth-Grade Elementary School Science Lessons

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A B S T R A K

Dalam penerapannya, media belajar belum digunakan secara optimal. Selain itu guru juga menyampaikan materi hanya dengan ceramah. Hal ini tentu akan menyulitkan siswa dalam memahami materi pembelajaran. Tujuan penelitian ini yaitu mengembangkan video pembelajaran berbasis videoscribe pada mata pelajaran IPA untuk siswa kelas V SD. Jenis penelitian ini yaitu penelitian pengembangan dengan menggunakan model ADDIE. Model pengembangan ADDIE. Subjek penelitian yaitu 1 ahli media,1 ahli materi dan 2 praktisi. Metode pengumpulan data mengggunakan observasi, dan kuesioner. Instrument yang digunakan dalam mengumpulkan data yaitu rating scale. Teknik yang digunakan untuk menganalisis data yaitu analisis deskriptif kualitatif dan kuantitatif. Hasil penelitian yaitu hasil penilaian yag diberikan pada ahli materi pembelajaran yaitu 4,75, sehingga mendapatkan kualifikasi sangat baik. Penilaian yang diberikan oleh ahli media pembelajaran yaitu 4,75 sehingga mendapatkan kualifikasi sangat baik. Penilaian yang diberikan oleh guru yaitu 4,83 sehingga mendapatkan kualifikasi sangat baik. Disimpulkan bahwa Video Berbasis Videoscibe valid dan layak digunakan dalam pembelajaran. Implikasi penelitian ini yaitu video pembelajaran berbasis Videosribe yang telah dikembangkan dapat membantu siswa belajar IPA.

A B S T R A C T

In its application, learning media has yet to be used optimally. In addition, the teacher also conveys the material only by lecturing. It will undoubtedly make it difficult for students to understand the learning material. This study aimed to develop video scribe-based learning videos for science subjects for fifth-grade elementary school students. This type of research is development research using the ADDIE model. ADDIE development model. The research subjects were one media expert, one material expert, and two practitioners. Methods of data collection using observation and questionnaires. The instrument used in collecting data is the rating scale. The technique used to analyze the information is descriptive qualitative and quantitative analysis. The research results are the results of the assessment given to the learning material experts, namely 4.75, so they get very good qualifications. The evaluation provided by learning media experts is 4.75, so they get very good qualifications. The assessment given by the teacher is 4.83, so the qualification is very good. It was concluded that Videoscibe-Based Video is valid and feasible to use in learning. This research implies that the Videosribe-based learning videos that have been developed can help students learn science.

1. INTRODUCTION

In preparing to face the increasingly rapid developments of the era, quality education is needed to adapt to science and technology's development. Education must be optimized as best as possible to improve the quality of Indonesian human resources and bring a change toward progress (Kosim, 2020; Mahmud et al., 2018). The development of science and technology must certainly be adjusted because it will affect learning activities. Therefore mastery of technology is very important so that it is close to other countries, especially for applying technology to learning (Bailey et al., 2022; Blackmore et al., 2021). In addition, education is not only for developing knowledge and skills but can build personality so that the Indonesian generation becomes a character (Indah Septiani et al., 2020; Sitorus et al., 2019). The development of quality education will certainly have a good impact on the quality of the Indonesian

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nation. One of the efforts to improve the quality of education is to improve the quality of human resources who play a full role in education management activities, especially teachers (Hartanti & Yuniarsih, 2018; Salmawati et al., 2017). Teachers have an important and significant role in improving the quality of education because teachers are the most important component that can educate students (Herliani & Wahyudin, 2018). The role of the teacher is the key to success in education to create quality education.

However, the current problem is that many teachers still experience difficulties in creating quality learning activities. It is because teachers are overwhelmed when teaching and are faced with other school tasks. Previous research findings also confirm that many teachers still experience difficulties, especially in developing media that can optimize learning activities (Ariyanti, 2020; Wahyono et al., 2020). Other research findings also reveal that many teachers still need to gain the ability to operate computers or create digital-based media (Ayu et al., 2020; Megawati & Utami, 2020; Sasmita & Darmansyah, 2022). The ability of teachers lacking in utilize technology will certainly impact the quality of learning that is less than optimal. Especially during the Covid-19 era, teachers must use technology for distance learning activities (Marisda & Ma'Ruf, 2021; Shafi et al., 2020). If the teacher cannot use technology appropriately, it will certainly impact the poor quality of learning.

The observations made at SD Negeri 1 Pulukan also found that teachers still had difficulties developing learning media. In its application, learning media has yet to be used optimally. In addition, the teacher also conveys the material only by lecturing. It will certainly make it difficult for students to understand the learning material. This finding is also supported by previous research, which revealed that learning media could make it easier for students to understand the material, especially very difficult (Asri et al., 2021; Najuah, Ricu Sidik, 2021). The material presented in the book provided by could be more varied, so learning becomes less interesting and makes students feel bored when participating in learning. The teacher only gives assignments in the student book then the answers are only collected and sent via the WhatsApp group so that sometimes some questions students do not understand are only answered soberly by students. In online learning, teachers also do not use concrete media and are less innovative, so students are passive in interacting directly with teachers and friends. The lack of online learning media is one of the teacher's obstacles in online teaching activities. Therefore, we need digital media that can support learning success.

The solution offered is to develop digital media to make it easier for students to learn directly or online. The learning process needs media because media is a support that can help teachers in teaching (AlAjmi, 2022; Suryaman et al., 2020). Other findings also reveal that the media is a channel that makes it easy to transfer knowledge (Hikmah & Purnamasari, 2017; Sanjaya et al., 2021). This learning media is necessary for learning activities because it provided a fun and varied learning activities that make it easier for students. Well-developed learning media will help students understand the meaning contained in the media so that students can easily learn (Rachmavita, 2020; Sudarsana et al., 2019). Besides that, other media's benefits are providing guidelines for teachers to achieve learning goals so that goals can be achieved optimally (Meyer et al., 2019; Rachmavita, 2020).

One of the digital media that can be used is learning videos. Video learning is one of the media presenting audio and visuals that present messages in concepts, principles, or procedures that help students understand easily (Amrullah et al., 2021; Nonthamand, 2020). Video is one of the audio-visual media with elements of motion to attract students' motivation and attention (Ahmad, 2021; Kawka et al., 2021). Students can see the concept of material presented in the media and hear the material's explanation directly so that it will facilitate students' thinking processes (Fakhruddin et al., 2020; Maiyena & Haris, 2017). One software that can be used to develop an interesting video is video scribe. Video scribes can be used to create animation designs whose development is very easy. This software application produces animated videos presenting pictures and music to attract students to learn (Muskania et al., 2019; Yusnia, 2019). Apart from that, making videos through the video scribe application can also be done offline so teachers can easily develop videos with internet services. It certainly greatly facilitates the teacher in developing media.

Previous research findings reveal that the use of video will attract students' motivation when learning the material (Mayang Ayu Sunami & Aslam, 2021; Sanjaya et al., 2021). Other research findings also reveal that the advantages of learning videos are that they can combine sound, images, and attractive designs to help students stay focused on learning activities (Amrullah et al., 2021; Nurfadhillah et al., 2021). Other findings also reveal that the use of video can increase motivational attention, thereby influencing student learning outcomes (Prasetya et al., 2021; Prehanto et al., 2021). It was concluded that the development of this video helps students in learning, especially learning science. There has yet to be a study of video scribe-based learning videos in science subjects for fifth-grade elementary school students. The advantage of the media to be developed is that the selection of learning videos is adjusted to the characteristics of students so that they can be used as alternative learning media that help students when

studying at home. This study aimed to develop video scribe-based learning videos for fifth-grade elementary school students in science subjects.

2. METHOD

This type of research is development research using the ADDIE model. The ADDIE development model includes analysis, design, development, implementation, and evaluation (Trust & Pektas, 2018). Student characteristics, needs, and media analysis were carried out in the analysis stage. At the planning stage, video storyboards and assessment instruments are designed. At the development stage, a video scribe-based learning video was developed. The implementation phase is carried out by testing the product on students. The evaluation stage is carried out at all stages. The research subjects were one media expert, one material expert, and two practitioners. Methods of data collection using observation and questionnaires. Observations were made to find out the problems that occur in the field. Questionnaires were conducted to assess the product being developed. The instrument used in collecting data is the rating scale. The instrument grids are presented in Table 1, Table 2, and Table 3.

Table 1. Trial Instrument Grid For Learning Material Experts

No	Aspect	Indicator	Total Item
1	The structure of the material presented is appropriate	1. Indicators following basic competencies. 2. The material presented is according to the indicators.	2
2	The accuracy of the material inside	1. The material presented in the video is correct. 2. The material is presented with an element of novelty. 3. The suitability of the material presented is based on existing facts.	3
3	The grammatical presentation is correct	1. The grammar used follows PUEBI. 2. The accuracy of the grammar used in the material. 3. The use of punctuation in the material presented is appropriate.	3
4	The level of difficulty of the material is adjusted to the characteristics of the user	1. The breadth of the material used is adjusted to the characteristics of the students. 2. The material presented is related to students' prior knowledge. 3. The depth of the material presented. 4. Using illustrations (examples) in learning media can clarify the material presented.	4

(Modified from Mayang Ayu Sunami & Aslam, 2021)

Table 2. Trial Instrument Grid For Learning Media Experts

No	Aspect	Indicator	Total Item
1	Visual quality	1. The attractiveness of the graphics displayed. 2. The attractiveness of the animation/image displayed 3. Appropriateness of the displayed content cover visualization. 4. The displayed images/videos are clear and have good resolution.	4
2	Sound clarity	1. The clarity of the narrator's voice in the video. 2. Appropriate use of sound effects/music in learning videos. 3. Background music does not interfere with the learning videos.	3
3	Suitability of video presentation	1. The video shown follows the characteristics of the students. 2. The suitability of the video with the learning objectives. 3. Appropriateness of the video duration with the target.	3
4	Creative in expressing ideas and creativity	1. The creativity shown is interesting in delivering the material. 2. Learning videos that display flexibility in terms of providing time, place, lessons, and teaching materials.	2

(Modified from Mayang Ayu Sunami & Aslam, 2021)

Table 3. Trial Instrument Grid For Teachers

No	Aspect	Indicator	Total Item
1	The attractiveness of student interest	1. The attractiveness of the cover 2. The attractiveness of the display of learning videos 3. The attractiveness of the displayed image 4. The clarity and attractiveness of the colors presented	4
2	Presentation of material	1. The material presented in the learning videos is easy to understand. 2. The material presented in the learning videos is clear. 3. The examples presented in the learning videos are easy to understand.	3
3	Voice Clarity	1. The voice of the narrator in the learning video is clear. 2. The background music in the learning video does not interfere with the clarity of the narrator's voice	2
4	Increase Student Attention	1. The learning videos presented can increase student attention	1
5	motivating	1. The learning videos shown can motivate student learning. 2. The material in the learning videos can be seen clearly.	2

(Modified from Mayang Ayu Sunami & Aslam, 2021)

Test the validity of the instrument using expert judges. Test the validity of the instrument using the Gregory formula. The technique used to analyze the data is descriptive qualitative and quantitative analysis. Qualitative descriptive analysis is used to process information in the form of input from experts and students. Quantitative descriptive analysis is used to process data using numbers given by experts and students. The score obtained is then converted using a five-scale guideline.

3. RESULTS AND DISCUSSION

Results

This research produced scribe-based learning videos for science subjects using the ADDIE model. First, analysis. The analysis results show that teachers still have difficulty developing learning media. In its application, learning media has yet to be used optimally. Besides that, the teacher also conveys material only by lecturing. It will certainly make it difficult for students to understand the learning material. The material presented in the book provided by the teacher could be more varied, so learning becomes less interesting and makes students feel bored when participating in learning. The teacher only gives assignments in the student book then the answers are only collected and sent via the WhatsApp group so that sometimes some questions students do not understand are only answered soberly by students. In online learning, teachers also do not use concrete media and are less innovative, so students are passive in interacting directly with teachers and friends. The lack of online learning media is one of the teacher's obstacles in online teaching activities. Therefore, we need digital media that can support the success of learning. The results of the curriculum analysis are presented in Table 4.

Table 4. Basic Competencies And Competency Achievement Indicators

No	Basic competencies	Indicators of Competence Achievement
1	3.1 Explain the locomotion of animals, their functions in animals and humans, and how to maintain the health of the locomotion of humans.	3.1.1 Analyzing the differences between the locomotor organs of vertebrates and invertebrates. 3.1.2 Analyzing the characteristics of vertebrate animals and invertebrate animals. 3.1.3 Analyzing examples of vertebrate animals and invertebrate animals. 3.1.4 Analyzing the structure and function of the locomotor organs of vertebrates and invertebrates.

Second, design. At this stage, I was designing a video based on a video scribe in the form of a storyboard. The first stage is to collect data for science content. Then design a video through storyboards.

The use of storyboards aims to make developing videos easier and follow the designs that have been done before. The results of the video design are presented in Figure 1.

Figure 1. Videoscribe-Based Learning Video Design

Third, development. At this stage, it is developing a video based on a video scribe. Video development is adapted to the storyboard that has been developed before. The development of the video is divided into several parts, namely, opening, content, and closing. The opening section contains the designer's identity, video title, learning objectives, Basic Competencies, and learning indicators. The contents section contains video content regarding the organs of movement of animals. The closing section contains a summary and closing greetings. The results of video development are presented in Figure 2.

Figure 2. The Results Of The Development Of Video Scribe-Based Learning Videos

Videoscibe-based learning videos that have been developed are then tested for validity by experts. Based on the assessment results given to the learning material experts, 4.75, they get very good qualifications. The assessment given by learning media experts is 4.75, so they get very good qualifications. The assessment given by the teacher is 4.83, so the qualification is very good. Based on the assessment results given by experts and teachers, it can be concluded that Videos based on Videoscibe are valid and suitable for use in learning.

Discussion

Videoscibe-based learning videos get very good qualifications, so they are suitable for use in learning. It is due to the first: Videoscibe-based videos make learning easier for students. Developing this video using the ADDIE model, the development becomes very structured to produce quality videos. Quality learning videos will certainly make it easier for students to understand the material presented in the video so that it has an impact on increasing student learning outcomes (Gusliati et al., 2019; Imany et al., 2019; Ridha et al., 2020). It was also revealed by the previous findings, which stated that learning video media that was developed optimally and validly would help students learn so that it would be easier for them to capture the information presented in the media (Hikmah & Purnamasari, 2017; Sanjaya et al., 2021). In addition, the learning videos also present material following the content of natural science learning, especially in the sub-theme of animal locomotion. The video specifically presented examples of animal locomotion organs to provide students with a better understanding. Moreover, the use of video also contains audio-visual elements so that students more easily absorb the information presented (Sarnoko et al., 2016; Suprianti, 2020). The video also presents material related to students' prior

knowledge so that students will remember the material presented in the video longer (Gusliati et al., 2019; Imany et al., 2019; Rachmavita, 2020; Ridha et al., 2020).

Second, Videoscibe-based learning videos increase student learning motivation. The use of digital media certainly makes learning activities very interesting (Meyer et al., 2019; Putri et al., 2020). The attractiveness of learning activities will have an impact on increasing student motivation. Previous research findings also reveal that learning activities designed attractively will increase students' motivation and enthusiasm for learning (Amrullah et al., 2021; Sari et al., 2020). In addition, other findings also reveal that students will enjoy learning activities involving media with color, image, and motion components more (Melinda et al., 2018; Nugraha & Widiana, 2021; Puspita & Raida, 2021). Learning videos are one of the media that can attract students' interest in learning. The presentation of grammar is also adjusted to the characteristics of students so that it will make it easier for students to understand the material presented in the video. Using illustrations or examples in the media will certainly make the material presented more real to attract students' interest in learning (Bustanil S et al., 2019; Yusnia, 2019). Apart from that, this video also uses sound effects or supporting music that is not distracting to make the presented videos more interesting. This learning video's attractiveness will certainly increase student motivation (Purwanti, 2015; Ulfah & Soenarto, 2017).

The findings of previous research also revealed that the presentation of learning videos shown according to student characteristics would make it easier for students to understand the material (Sholikah et al., 2018; Tegeh et al., 2019). Previous research findings also suggest that the attractiveness of learning videos and their highly flexible use will help students learn anywhere (Darsana et al., 2021; Nurdin et al., 2019). Other studies have also revealed that valid learning videos can significantly increase student motivation and learning outcomes, especially in science learning (Mayang Ayu Sunami & Aslam, 2021; Mertasari & Ganing, 2021). It was concluded that using instructional videos in science materials greatly helps students understand basic concepts and helps teachers convey information to students. This learning media certainly has a positive impact on learning. This research implies that video scribe-based learning videos can facilitate students in learning science and increase student motivation. Teachers can use the ease and accuracy of the learning videos that have been developed as learning media which become facilities for students in independent learning.

4. CONCLUSION

The results of the data analysis found that Videos based on Videoscibe received very good qualifications from experts and teachers. It can be concluded that Videoscibe-Based Video is feasible to use in learning. Videos based on Videoscibe help increase students' enthusiasm for learning science, especially in the material of animal locomotion. It certainly has an impact on increased student learning outcomes.

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