



Problem Based Learning Animation Videos in Third Grade Indonesian Language Lesson Content

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ABSTRAK

Proses pembelajaran yang diterapkan di sekolah cenderung berpusat pada guru, sehingga siswa menunggu penjelasan materi dari guru. Kondisi ini mengakibatkan siswa membutuhkan bantuan dalam menjawab berbagai persoalan dan permasalahan yang dihadapi dalam proses pembelajaran. Penelitian ini bertujuan untuk mengembangkan video animasi pembelajaran berbasis masalah pada konten bahasa Indonesia Kelas III. Penelitian ini menggunakan penelitian pengembangan ADDIE. Subyek penelitian ini terdiri dari 1 ahli desain pembelajaran, 1 ahli media pembelajaran, 1 ahli isi pembelajaran, tes individual (3 siswa), dan kelompok kecil (9 siswa). Metode pengumpulan data diperoleh dengan menggunakan metode tes dan angket. Teknik analisis data kuantitatif dan kualitatif. Hasil penelitian menunjukkan validitas ahli desain pembelajaran dengan skor 95%, ahli isi pembelajaran dengan skor 94,54%, ahli desain pembelajaran dengan skor 86,15%, hasil uji coba individual dengan skor sebesar 88,66%, dan hasil uji coba kelompok kecil yaitu memperoleh skor 89%. Efektivitas media pembelajaran dilihat dari uji t dengan nilai t hitung sebesar 17,247 dan t tabel sebesar 1,717. Disimpulkan terdapat perbedaan yang signifikan hasil belajar siswa antara sebelum dan sesudah menggunakan media video animasi pembelajaran berbasis masalah. Implikasi penelitian ini yaitu guru dapat menggunakan media dalam mengajar sehingga memudahkan siswa dalam memahami materi pelajaran.

ABSTRACT

The learning process implemented in schools tends to be teacher-centered, so students wait for explanations of material from the teacher. This condition results in students needing help answering various problems and issues encountered in the learning process. This research aims to create problem-based learning animation videos for Class III Indonesian language content. This research uses ADDIE development research. The subjects of this research consisted of 1 learning design expert, 1 learning media expert, 1 learning content expert, individual testing (3 students), and small groups (9 students). The data collection method was obtained using the test and questionnaire method—quantitative and qualitative data analysis techniques. The results of this research show the validity of the learning design expert with a score of 95%, the learning content expert with a score of 94.54%, the learning design expert with a score of 86.15%, the results of individual trials with a score of 88.66%, and the results of small group trials namely a score of 89%. The effectiveness of learning media can be seen from the t-test with the calculated t value of 17.247 and t table of 1.717. The conclusion is that there is a significant difference in student learning outcomes between before and after using problem-based learning animated video media. This research implies that teachers can use the media in teaching, making it easier for students to understand the lesson material.

1. INTRODUCTION

Education can be illustrated as an important process to achieve balance and progress in the development of individuals and society as a whole (Savitri & Manuaba, 2022). Education provides changes in the future of life that have a better impact on a person (Semara & Agung, 2021). Changes in the quality of education can be achieved by changing conventional learning media which is expected to be easier to understand quickly and accurately (Apriansyah, 2020; Purnomo & Anshory, 2020). Indonesian becomes a

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form of identity and an intermediary in communication (Desmirasari & Oktavia, 2022). Learning Indonesian equips students with four skills, namely listening, speaking, reading and writing (Nurrahmah, 2023; Putri Laras Sati et al., 2023; Rahayu, 2023). Learning media are tools used to convey messages and information that are educational in nature or for educational purposes (Adi et al., 2020; Gusmida & Islami, 2017; Hamidi et al., 2023). Learning media is a tool for delivering learning material, such as books, films and videos (Isnaeni & Hildayah, 2020; Pranata & Jayanta, 2021). Media in learning has great meaning and influence, especially in relation to students' senses (Hamidi, 2023). Learning media are chosen based on habits and availability without thinking about their effectiveness (Najihah, 2023). Its function is to help convey messages so that they are easier to understand. Learning media is very diverse amidst current developments, especially in the development of digital media.

In reality, there are still many teachers who do not understand how to utilize technology, especially in learning media. there is a lack of learning resources that are appropriate to the students' conditions, the learning process implemented in schools tends to be teacher-centered so that students tend to wait for explanations of the material from the teacher (Candra Dewi & Negara, 2021; Sukarini & Manuaba, 2021; Taqiya et al., 2019). This condition results in students having difficulty in answering various problems and issues encountered in the learning process. Through the results of interviews and observations carried out in class III of MI Nurul Wathan Celukan Bawang involving 42 students, it was found that the average score for Indonesian language lessons was 55.50%, while the KKM set was 75. During the teaching and learning process, the teacher only used teacher's book and student's book. Teachers only use textbooks and lecture methods in learning. Teachers rarely use learning video media during learning, but the videos are taken from the internet. The existing facilities are also adequate, such as laptops, electricity, LCD projectors, but their use is not optimal, so students also experience difficulties in understanding the learning material.

The solution to overcome problems is by using learning media, one of which is animation media. Animation consists of a collection of moving images of objects with special effects, creating a realistic and attractive appearance (Hita, 2021). Animation media is media that is composed of a collection of images that are processed in such a way that they can produce movement accompanied by audio so that it looks more alive and contains learning messages (Made et al., 2021; Mashuri & Budiyo, 2020; Muslina et al., 2018). The advantage of animation is that it makes the audience feel happy (rather than bored) and can stimulate learning (Arditya Isti, 2020). Animated videos present attractive visuals through colors and characters that invite children to take part in the story. Musical accompaniment causes the child's right brain to work, attracting stimuli for the child to react (Lestari & Astuti, 2023; Roza, 2020). Learning videos also have the effect of supporting active learning and increasing learning efficiency, increasing motivation and student-centered learning (Pepadu et al., 2022; Putri et al., 2022). Animated videos provide interesting images for students, where in their application students are presented with unique and colorful images (Ahmet et al., 2018; Saltan & Faruk, 2017). Messages can be conveyed through moving images.

This animated video can be combined with various learning models, for example the problem-based learning model. Problem-based learning is a learning model which in its application presents a real world problem so that students are required to learn to think critically and develop their abilities in solving a problem (Effendi et al., 2021; Subaini et al., 2022; Zakiah et al., 2019). The Problem Based Learning model encourages authentic problems to become the focus of learning with the aim that students can solve related problems so that students are trained to have high numeracy literacy and think critically (Masliyah et al., 2023; Muga & DNL, 2017; Mulyani, 2020). PBL has two important problems. The first problem is that this approach means students can construct knowledge more actively when working together in groups. Second, the roles of teachers and students can be made synergistic. In other words, teachers no longer act as the only source of learning, but as facilitators or collaborators. In this case, teachers can ask questions and encourage students to think more critically and creatively and participate in all pre-learning processes. This is a measure of the success of PBL (LaForce et al., 2017; Novellia, 2018; Salam, 2022). Problem solving according to Vienna involves cognitive activities that are regulated by behavior. The action to find a solution becomes the result of problem solving. This involves manipulating actions based on prior knowledge (Lanthanide, 2019).

Previous research findings stated that animation-based two-dimensional geometry learning videos were feasible and valid for fourth grade elementary school students (Yusa & Sukmana, 2022). Animated video media based on the Canva application to increase student motivation and learning achievement (Hapsari & Zulherman, 2021). En-alter sources animated video learning media based on the Powtoon application, alternative energy source material for elementary schools, is suitable for use (Dewi & Handayani, 2021). Animated video media to increase learning motivation and responsible character of fifth grade students (Widiyasanti & Ayriza, 2018). Online learning animation videos for grade VI elementary school science subjects are feasible and valid (Sukarini & Manuaba, 2021). Innovative learning media that can help students in independent learning, especially amidst the limitations they face, is very important to

develop. The advantage of the animation media that will be developed is that this animation media is very suitable for elementary schools because it suits the characteristics of elementary school students who like pictures and are interesting. The aim of the research is to create problem-based learning animation videos for Class III MI Nurul Wathan Indonesian language lesson content. The existence of animated learning media and the application of this problem-based learning model provides effective learning for Indonesian language lessons.

2. METHOD

This research uses development research, according to Borg and Gall that development research aims to develop and validate learning products. This development research model adopts the ADDIE development model, which is a systematic learning design model with detailed steps. The goal is to solve learning problems and produce valid products (Made Mahendra, 2021). ADDIE is a learning design model designed systematically with detailed steps to overcome learning problems and produce valid products (Rayanto, 2020). ADDIE itself is a process that serves as a guiding framework for various complex conditions, providing educational development results and other learning resources (Hidayat & Nizar, 2021). The development design model in learning helps simplify something complex into a real form with general steps or stages that can be applied to various circumstances or conditions (Rohaeni, 2020). This research develops problem-based learning animation videos to increase students' literacy, interest and motivation in studying at MI Nurul Wathan in Celukan Bawang. There are five stages in the ADDIE model, namely analysis, design, development, implementation and evaluation.

The test subjects consist of two sources, namely reviews by experts and trials by students. Reviews by experts involve learning content experts, learning design experts, and learning media experts. Meanwhile, student trials consisted of individual trials with 3 students, small group trials with 9 students, and large group trials with 23 students from class III MI Nurul Wathan. This research analysis uses 2 analyses, namely qualitative descriptive analysis where the data is in the form of suggestions and comments, Qualitative descriptive analysis is a way of analyzing data by systematically collecting categories about an object (objects, symptoms, certain variables) in the form of sentences or words, finally come to a general conclusion (Anak Agung Gede Agung, 2017). Then, quantitative descriptive analysis of the data is in the form of values or numbers obtained from students. The data collection method was obtained using the test and questionnaire method. The test methods given are pre-test and post-test. Questionnaire method in the form of questions based on expert reviews and student trials. The questionnaire will be given according to a predetermined grid. The grid can be seen in Table 1, Table 2, Table 3, Table 4, and Table 5.

Table 1. Learning Content Expert Grid

No (1)	Aspect (2)	Indicator (3)	Item no (4)
1	Video suitability	1. Suitability of learning objectives	1
		2. Objective learning in accordance with format A B C D	2
		3. Suitability material on videos	3
2	Clarity message /material	1. Clarity material which served	4
		2. Systematics material which served	5
3	Representation Contents	1. Capable interesting interest and motivation study student	6
		2. Suitability example with learning HOTS	7
		3. In accordance on level maturity student	8
		4. Treasury language which good	9
4	Users Friendly	1. Convenience user in access media	10
		2. The right combination of visuals and writing	11
Amount			11

(Source: modified from Widiarti, 2021)

Table 2. Learning Design Expert Grid

No (1)	Aspect (2)	Indicator (3)	Item no (4)
1	Video suitability	1. Suitability of learning objectives	1
		2. Objective learning in accordance with format A B C D	2
		3. Suitability material on videos	3
		4. Material in videos learning packed in a way coherent	4

No (1)	Aspect (2)	Indicator (3)	Item no (4)
2	Visual media	1. Accuracy color which served	5
		2. Accuracy type and size letter on videos	6
		3. Accuracy writing spelling on material	7
		4. Accuracy illustration with description	8
3	Representation fill	1. Capable interesting interest and motivation study student	9
		2. In accordance on level maturity student	10
		3. Treasury language which good	11
4	Clarity of massage	1. The accuracy of the message in the video	12
		2. Can provide understanding of learning messages	13
Amount			13

(Source: modified from Widiarti, 2021)

Table 3. Learning Media Expert Grid

No (1)	Aspect (2)	Indicator (3)	Item no (4)
1	Media visualization	1. Attractiveness dish animation which is displayed	1
		2. Attractiveness dish picture which is displayed	2
		3. Attractiveness dish text which is displayed	3
		4. Can increase motivation student in learning	4
2	Duration time	1. Accuracy color Which served	5
		2. Accurate duration of voice and text	6
3	Use of narration, music and sound effects	1. Clarity of the narrator's voice	7
		2. Regularity of background music	8
		3. Accuracy sound effect which used for add atmospher and complete dish visual	9
4	Users Friendly	1. Convenience in use media	10
		2. Combination visual and writing which appropriate	11
5	Stand Alone	1. In use media no depend with material teach other	12
Amount			12

(Source: modified from Widiarti, 2021)

Table 4. Individual Test Grid and Small Group Test

No (1)	Aspect (2)	Indicator (3)	No Item (4)
1	Users Friendly	1. Ease of using media	1
		2. The right combination of visuals and writing	2
2	Stand Alone	1. In use media no depend with Bahar teach 1 other	3
3	Content Representation	1. Instruction study on videos clear	4
		2. Clarity material which served	5
		3. Clarity on text which served	6
		4. Use picture on videos make it easier understand videos	7
		5. Material which served easy understood	8
		6. Example which served capable motivating student	9
		7. Attractiveness visual which served	10
		8. Videos learning capable increase motivation study	11
		9. In accordance on level maturity student	12
		10. Media which developed in accordance with characteristics student	13
Amount			13

(Source: modified from Widiarti, 2021)

Table 5. Pre-Test and Post-Test Grids

Basic Competencies (1)	Indicator (2)	Number of Questions (3)
Dig information about source and form energy which presented in form oral, write, visual, and/or exploration environment	1. Correctly determine renewable and non-renewable energy sources	1, 16
	2. Categorize energy sources	3, 14
	3. Identify source energy	4, 10, 12, 19, 20
	4. Analyze energy sources	6, 11, 13, 15
	5. Analyze the benefits of energy sources	5, 8, 9,
	6. Categorize food as an energy source	2, 7, 17, 18
Amount		20

3. RESULT AND DISCUSSION

Results

The results of this research are a description of the design of the learning animation video, the results of the validity and effectiveness of the learning animation video. The ADDIE development model includes 5 development stages, namely analysis, design, development, implementation and evaluation. The following is a description of the ADDIE model. First stage of Analysis. There are 3 analyzes carried out at this stage, namely needs analysis, which is the process of identifying what the needs of teachers and students are during the learning process. From 42 students, the average score for Indonesian language lesson content was 55.50%, the KKM was set at 75 In the teaching and learning process teachers only use teacher books and student books. student analysis, this stage is identifying student characteristics in learning where in the learning process students quickly get bored in learning because learning uses the lecture method, and facility analysis, in this analysis the researcher analyzes existing facilities so that what media is suitable for developing learning media. Existing facilities are adequate, such as electricity, PC, projector and speakers.

The second stage of design, the design stage in this research is designing an animated learning video product. The first thing to do is determine the learning indicators, then proceed with making a storyboard from the animated video. After that, the researcher created a media assessment instrument that would be given to experts and students and finally prepared a learning implementation plan. The third stage of development, this stage is the process of creating an animated learning video product according to the storyboard that was created at the design stage. Product validity testing is a process to determine whether a learning media is suitable for use. Product validity testing involves reviews by experts in the field, such as learning content experts, learning design experts, and learning media experts. Apart from that, trials were also carried out by students, both individually and in small groups. The results of the validity and creation of animated videos are presented in Table 6 and Figure 1.

Table 6. Validity Results

No	Test Subjects	Results Validity	Percentage Qualification
1	Test expert fill learning	94.54%	Very good
2	Test expert design learning	86.15%	Very Good
3	Test expert media learning	95.00%	Very Good
4	Test try individual	88.66%	Very Good
5	Test try group small	89.00%	Very Good



Figure 1. Making Animated Videos

The fourth stage of implementation is the stage of assessing the feasibility of animated learning video media provided to students, teachers and experts. And last Evaluation. The evaluation stage is the result of the implementation stage. This stage is an explanation of the results of the expert assessment, the aim of which is to determine the feasibility of the animated video media being developed. Product effectiveness testing is a test carried out to find out how effective the media applied to students is. The effectiveness test was carried out using inferential statistics, namely the t-test, the values used were the values obtained from the pre-test and post-test results of 23 class III students. Before the data was processed, a prerequisite test was carried out to determine whether the data was normal and homogeneous. After carrying out the prerequisite tests, the t-test was carried out. The results obtained were yes. The calculated t_{value} is $17.247 > t_{\text{table}} 1.717$ which shows that there is a significant difference in student learning outcomes between before and after using problem-based learning animated video media in Indonesian language lesson content.

Discussion

Design and development of animated videos carried out using the ADDIE development model. The ADDIE model is a model used for the process of designing instructional systems using a systems approach (Cahyadi, 2019). A systems approach to learning planning involves separating the process into several stages. These stages are organized logically and each stage uses its results as input for the next stage. ADDIE Model consists of 5 stages, namely analysis, design, development, implementation and evaluation (Setiadi & Nurma Yuwita, 2020). The analysis stage states that analysis as an activity includes the activities of sorting, differentiating, arranging these activities and then classifying/grouping them according to certain criteria to determine relationships and ideas of meaning (Abduh & Istiqomah, 2021). The purpose of this analysis is to find out what problems are being faced, what the students' character is and the existing facilities, the design stage is the stage for designing animated videos from indicators, storyboards, assessment instruments and learning implementation plans. This ADDIE development model is useful for research in solving the problems faced (Liberta Loviana Carolin, 2020). The results of the research showed that the animated learning video media that was applied improved Indonesian language learning outcomes for class III MI Nurul Wathan Celukan Bawang. The level of effectiveness seen from the learning process increases, so students' enthusiasm for learning also increases, which is characterized by increased curiosity, strong motivation to ask questions, persistence in writing and always being sensitive in learning (Veranda of Mecca Banda Aceh, 2022).

The use of learning media that is appropriate to the characteristics of students as a learning stimulus tool that helps arouse students' curiosity and motivation to learn, so that learning can be achieved optimally. The animated videos developed can motivate 11q2w4678 students in learning and can make it easier for students to understand the material well. Elementary students generally tend to get bored quickly when learning, resulting in a lack of motivation when studying (Ganing & Wulandari, 2023; Satyawan, 2018). So, by having animated video media that suits students' characteristics, this video is able to increase students' enthusiasm when participating in learning. In designing effective learning media, several requirements must be met, such as making the media as simple as possible, easy to understand, interesting so that students are motivated to learn (Megawati & Utami, 2020; Roza, 2020). The animated video is designed attractively with the display of moving images and attractive colors in the animated video so that it suits the character of elementary school students. Elementary school students tend to be more interested in things that move which results in students wanting to know the reasons why something happens. This is one of the basic considerations for choosing video media with animation as the main element. Colors and pictures can attract attention and increase students' learning motivation (Fuada & Marhamah, 2021; Wardani & Syofyan, 2018). Animated videos can convey complex concepts, attract attention, increase motivation and stimulate students' thinking, can present messages better than other media, and can be used to provide virtual learning.

This finding is strengthened by previous research findings stated. The connected type integrated learning model assisted by animated video media is feasible and valid to use (Taqiya et al., 2019). The use of animated video learning media based on zoom meetings influences elementary school students' interest and science learning outcomes (Mayang Ayu Sunami & Aslam, 2021). Animation-based two-dimensional geometry learning videos are feasible and valid for fourth grade elementary school students (Yusa & Sukmana, 2022). Animated video media based on the Canva application to increase student motivation and learning achievement (Hapsari & Zulherman, 2021). En-alter sources animated video learning media based on the Powtoon application, alternative energy source material for elementary schools, is suitable for use (Dewi & Handayani, 2021). Animated video media to increase learning motivation and responsible character of fifth grade students (Widiyasanti & Ayriza, 2018). Online learning animation videos for grade VI elementary school science subjects are feasible and valid (Sukarini & Manuaba, 2021). The results of the

research carried out have an impact on education, especially in solving problems in schools and then increasing teachers' abilities in creating learning media. The limitation of this research is that in terms of existing facilities, the school does not yet have a sound system to support the use of learning media. Therefore, schools need to increase existing facilities. The implications of this research are mThe media developed can be used by teachers in teaching, making it easier for students to understand the subject matter. This will have an impact on improving student learning outcomes.

4. CONCLUSION

Research on the development of problem-based learning animation videos on Indonesian language lesson content can provide solutions to problems at school. Judging from the validity tests carried out by experts and student trials. The effectiveness level test carried out by conducting a pretest and posttest showed that it could be concluded that there were differences in student learning outcomes before and after using animated learning video media.

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