

Development of Interactive Videos on Rights and Obligations in Pancasila Education Learning for Students of Phase B Grade IV Elementary School

Zerintan Aprida¹, Lovandri Dwanda Putra²

Universitas Ahmad Dahlan, Yogyakarta, Indonesia

Universitas Ahmad Dahlan, Yogyakarta, Indonesia

zerintan1900005155@webmail.uad.ac.id¹ lovandri.putra@pgsd.uad.ac.id²

ARTICLE INFO

Received
Revised
Accepted

Keywords

Rights and Obligations, Pancasila Education, Development, Elementary School, Interactive Video

ABSTRACT

Learning media is a learning resource that functions as a focus for students' attention, generates learning motivation, and activates students' responses. Interactive video is an audio-visual based learning media that will invite viewers as users, owners and active participants in media packaged cinematically. The purpose of this study is to describe and analyze the stages of making, and quality of interactive video media material on rights and obligation in learning pancasila education for phase b students in grade IV elementary school. The research method used is Research and Development with ADDIE model, namely analysis, design, development, implementation, and evaluation. In the implementation stage, the researcher did not do this stage due to time constraints. The design of the trial was carried out with the validation of media experts, and student responses and teacher responses. The data collection instrument uses interview techniques and assessment sheets. The data analysis techniques of this study use qualitative and quantitative data. The target subjects of media development are all phase b students of grade IV of SD Muhammadiyah Sambisari totaling 15 people, and 1 grade IV teacher. Based on the result of the study, the following data were obtained. The assessment by media experts received a score of 94.5 in the "Very Good" category. The validation results by material experts received a score of 91 in the "Very Good" category. The validation results by learning experts received a score of 75 in the "Good" category. The results of the media trial showed that the students' responses got a score of 96 in the "Very Good" category, and the teacher's response got a score of 100 in the "Very Good" category. The final score obtained from expert validators, student and teacher responses received a score of 94.2 in the "Very Good" category. So it can be concluded that the interactive video on rights and obligations in Pancasila education for students in phase b grade IV of elementary school is of quality to be used as a learning medium in the learning process of Pancasila Education phase b grade IV of elementary school.

This is an open access article under the [CC-BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.



1. Introduction

Learning and teaching are two concepts that cannot be separated from each other. These two concepts become integrated in one activity where there is interaction between educators and students, as well as students with students. In the unit of educational environment, learning is a process of interaction between teachers and students, and learning resources [1]. According to [2] Learning resources are all sources in the form of data, people and certain forms that can be used by students in learning, either separately or in combination so as to make it easier for students to achieve learning goals or achieve certain competencies. Learning media is part of learning resources and at the same time an integral part of educational technology that needs to be utilized and utilized to support the effectiveness of the learning process. Learning media is universally a tool used for the process of educational activities that can help facilitate the learning process and help students master and receive material that is informed by teachers or teachers

[3]. Learning media developed with technology today is an interesting thing to discuss, because education is growing from time to time. In the digital era like today, technology is the main reference that drives the development of education. Technology as a learning medium in supporting creativity and success in the world of education because it can help human life to do things that cannot be done by relying on empty hands, technology also provides many uses that can make it easier for humans to carry out activities and get information, such as in the world of education, through existing technology students and teachers can easily access Information, reading news, reading knowledge books and others on the internet educators can also use media such as Power Point, YouTube and others to make learning more interesting[4].

Learning media grows and develops in line with the development of learning technology and learning curriculum. This is shown by the existence of the "Independent Curriculum" initiated by Nadiem Makarim. The independent learning curriculum is a curriculum with a varied intracurricular. With the implementation of this curriculum, teaching and learning activities will be more optimal and students have more time to improve their quality and potential[5]. Through this curriculum, educators can choose learning media or learning devices in order to adjust to the needs of learning activities and the interests of students [5]. One type of learning media is interactive video.

Prastowo in [6] Explain that interactive video is a learning media in which it combines elements of sound, motion, images, text, or graphics that are interactive to connect the learning media with its users. In interactive video, there is interaction or reciprocal relationship between users and the media itself. To be able to make videos interactive, of course, a supporting platform is needed, edpuzzle can be one of the alternative choices in interactive video development. Edpuzzle is a video-based learning application and media that can be used to create lessons as interesting as possible, videos can be taken through Youtube, Khan Academy and Crash Course then the video is entered into the Edpuzzle application and educators can ask questions and track whether their students watch the video given and how familiar students are with the material provided. Teachers can take advantage of online media by creating learning content on www.edpuzzle.com. Then after creating an online class there and presenting learning content media, the teacher shares the digital class link with students through a whatsapp group. Students click on it, then open the edpuzzle version of the android application downloaded from the playstore[7].

Based on the results of an interview conducted on July 11, 2023 with the homeroom teacher of grade IV of SD Muhammadiyah Sambisari. It is known that the fourth grade of SD Muhammadiyah Sambisari has used the independent curriculum, but the homeroom teacher

of grade IV still uses the KKM to set the minimum level of achievement expected by students in the subject on the grounds that it is easier and more effective according to him. Teaching media is still in the form of package books, learning methods are still teacher-centered. He has shown learning videos from YouTube, but has not used interactive learning media. This causes students to quickly feel bored and not pay attention to the ongoing learning. Therefore, interactive learning media is needed that can create a learning atmosphere that involves active and fun participation for students. The development of interactive video learning media is expected to help the learning process of students.

Based on observations during Pancasila Education learning, it was found that the teaching media alone, namely books and whiteboards, caused students to quickly feel bored during learning. There are still many students who do not understand the material of rights and obligations, this is evidenced by the many values of the daily review of Pancasila Education material of students' rights and obligations that are still under the KKM. Grade IV homeroom teachers still use KKM to set the minimum level of achievement expected by students in the subject on the grounds that it is easier and more effective.

Characteristics of elementary school students who still like to play, like fun things, like to feel or do/demonstrate something directly. Therefore, it is necessary to have media that can help students understand the material easily and happily so that researchers realize by developing interactive videos of rights and obligations material that also gives students the opportunity to interact with learning media directly.

One of the right media to overcome these problems is interactive video. Interactive learning videos are very interesting and practical learning media presentation, interactive learning media are effective enough to improve the results of understanding the concepts of students [8]. Interactive videos contain practical demands on target, which are presented through audio-visual percentages (images, and sounds) equipped with clear and easy-to-understand Indonesian guiding voices, used in the learning process, and can make students to interact or reciprocal relationships in the learning process[9]. In line with research [10] suggests that interactive videos are engaging, easy to understand, and can improve student learning outcomes. Based on this presentation, the objectives of this study are: 1) to determine the stages of developing interactive video media for rights and obligations in learning pancasila education for phase b grade IV elementary school students. 2) To analyze the quality of interactive video media rights and obligations material on learning pancasila education for phase b grade IV elementary school students.

This interactive video was developed using ADDIE's design research. According to [11] which includes: 1) Analyze, 2) Design, 3) Development, 4) Implementation, and 5) Evaluation. The first step in this development research is analysis. The analysis carried out is an analysis of the needs of students. The analysis of student needs is carried out to find out the problems of students when participating in the learning presented by the teacher. This analysis also aims to find out the right solutions needed by students in the learning process.

Furthermore, the second stage of design, design activities are carried out by making initial product designs, interactive videos, rights and obligations materials through the stages of collecting references, making storyboards, and preparing research instruments. The third stage in ADDIE development. Development is carried out by developing what has been designed at the design stage. The products produced in the development stage are then validated by experts, namely media experts, material experts, and learning experts. The advice given by experts is used to improve the material and interactive videos that have been created. The fourth stage, namely the implementation in the ADDIE development model, is carried out by not only testing through several scientific stages. The resulting product must be appropriate, valid, and the results obtained can be measured and tested by several

components such as expert tests, and field tests. Finally, the evaluation stage or evaluation is carried out by revising in each step of development so that the quality of the developed media will be known.

Product trials are carried out to determine the quality and feasibility of media to be used in the process of learning activities. The product trial stage is a validation trial conducted with media, material, and learning experts. Furthermore, product trials were carried out through teacher response tests and phase b students of grade IV elementary schools. The subjects of research trials on the products developed are reviewers consisting of media experts, material experts, learning experts, and class IV teachers as well as phase b class IV student trials. Assessment/examination is carried out by filling in the assessment instrument that has been made. The type of data used in development research or Research and Development (R&D) research uses two types of qualitative data and quantitative data. Qualitative data is data in the form of sentences that descriptively contain revisions, notes, inputs, criticisms and suggestions from expert lecturers (media experts, material experts, learning experts) grade IV teachers and class IV phase B students regarding the product being developed. While quantitative data is data in the form of numbers that can be measured and calculated directly obtained from assessments carried out by expert lecturers (media experts, material experts, learning experts) and grade IV teachers and students in the form of information or explanations expressed in the form of numbers. Data collection instruments were conducted by interviews and questionnaires.

The data analysis techniques used in this study are qualitative and quantitative data analysis techniques. Qualitative data analysis is used to process data obtained from inputs, suggestions, and comments provided by the validation results of experts, namely: media experts, material experts, learning experts, teacher assessment sheets, and student response questionnaires. Meanwhile, quantitative data analysis is obtained from the results of questionnaires or questionnaires by media experts, material experts, learning experts, teacher assessment sheets, and questionnaires of student responses to learning media. Data analysis validation sheets of experts (media experts, material experts, learning experts), and teachers use the Likert scale while student response assessment sheets use the Guttman scale.

Table 1. Systematic Scoring Scores with Likert Scale

Rating Scale	Assessment score
Very Good	5
Good	4
Enough	3
Not Good	2
Very Bad	1

Source: Sugiyono, in [12]

Table 2. Scoring Score Categories with Guttman Scale

Information	Score
Yes (Agree)	1
No (Disagree)	0

Source: Sugiyono, in [13]

Calculating each score obtained from media experts, material experts, learning experts, and teacher responses, then made in percentages using the following formula

First Author et al. (Title of paper shortly...)

$$N \frac{\sum x}{\sum maks} \times 100$$

Information:

N : Mark

$\sum x$: Number of scores obtained

$\sum maks$: Maximum number of scores

Calculate the average results of the assessment of interactive video media rights and obligations of media experts, material experts, learning experts using the following formula:

$$x = \frac{\sum x}{n}$$

Information:

X : Average score

$\sum x$: Total score

n : Number of validation expert

Calculate the score from the response of phase B grade IV elementary school students obtained using the Guttman scale using the following formula:

$$p = \frac{f}{n} \times 100$$

Keterangan:

p : Mark

f : Total score obtained

n : Number of validation expert

Tabel 3. Assesment Categories

Score Range	Information
81 – 100	Very Good/Very Decent
61 – 80	Good/Decent
41 – 60	Good Enough/Decent Enough
21 – 40	Not Good/Not Worth It
0 – 20	Not Good/Not Worth It

Sumber: Arikunto & Jabar, in [14]

2. Result and Discussion

This study uses the ADDIE development research model according to [11], with 5 development steps, which are as follows. The first stage carried out is Analysis. At this stage, the collection of information about SD Muhammadiyah Sambisari was carried out by conducting observations and interviews with class IV homeroom teachers. Next, conduct an analysis of the needs of students. The needs of elementary school students who still like to play, like fun things, enjoy feeling or doing/demonstrating something directly. Therefore, it is necessary to have a type of media that can help students understand the material easily and happily so that researchers realize by developing interactive videos of rights and obligations material that also gives students the opportunity to interact with learning media directly.

Furthermore, the second stage is the design stage. Design activities are carried out by making initial product designs, interactive videos, rights and obligations materials through the reference collection stage, starting from finding the material to be used, images, audio, animation, and steps for making interactive videos. In addition to collecting references, storyboarding is also done to make it easier to design each scene in an interactive video. Next is the manufacture of products. Making animated videos using Canva as well as capcut and

adding interactive elements which is created using edpuzzle according to a pre-made storyboard, which uses images, audio, and prepared materials. After making the product, Furthermore, the preparation of assessment sheet instruments. The preparation of the assessment sheet instrument is used to conduct validation tests on interactive videos developed to media experts, material experts, and learning experts. The preparation of instruments was also carried out to be given to teachers and students after using interactive videos that have been validated and revised from the assessment of experts. This instrument, in the form of an assessment sheet is used to assess the products that have been developed.

Furthermore, the third stage is development. The product developed is an interactive video of rights material and on learning Pancasila Education for Phase B students of grade IV elementary school, after the development of this interactive video is completed in accordance with the previously designed design. Then quality tests are carried out by media experts, material experts, and learning experts, in addition to giving assessments, experts also provide suggestions and inputs for revision of the developed products. Furthermore, the product was tested to determine the quality of the response of teachers (grade IV homeroom teachers) and phase B students of grade IV of SD Muhammadiyah Sambisari which amounted to 15 students.

Table 4. Expert Validation Test Assessment Results Data

No	Valuation	Value	Category
1	Category	94,5	Excellent
2	Material Expert	91	Excellent
3	Learning Experts	75	Good
Sum		260,5	
Score / Grade		86,8	
Category		Excellent	

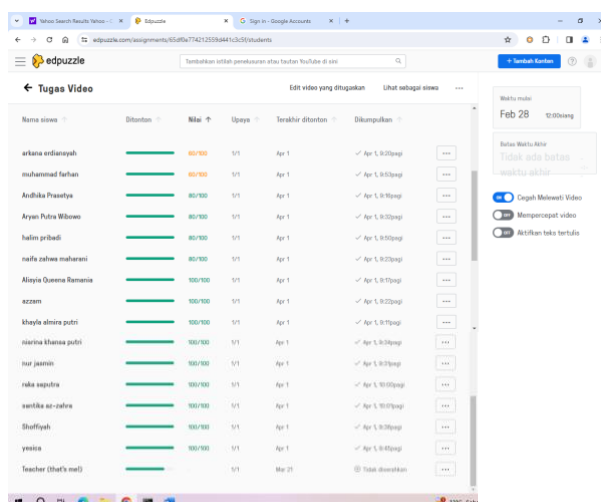


Figure 1. Learning Analytics Interactive Video Rights and Obligations Material

There is learning analytics in interactive videos of rights and obligations material is an advantage because student data that accesses interactive videos of rights and obligations material is directly listed on the edpuzzle application, besides that student value data in learning analytics can also be downloaded so that it is more practical for teachers. Learning analytics is defined as measuring, collecting, analyzing, and reporting data related to learners and their context with the aim of understanding and optimizing learning and the environment, Long & Siemens in[15]. The following are the scores obtained by phase B grade IV students of SD Muhammadiyah Sambisari after doing the questions contained in the interactive video of the rights and obligations material listed in learning analytics.

Table 5. Assess students after doing questions on interactive videos

No	Student Name	Value
1	AQR	100
2	AP	80
3	AE	60
4	APW	80
5	ASR	100
6	HP	80
7	KAP	100
8	MF	60
9	NZM	80
10	NKP	100
11	NJ	100
12	RS	100
13	SA	100
14	S	100
15	YR	100
Average		89,5

Table 6. Results of Student Response Questionnaire Sheet

No	Valuation	Value	Category
1	Student response questionnaire sheet	96	Excellent

Table 7. Results of Teacher Response Questionnaire Sheet

No	Valuation	Value	Category
1	Teacher response questionnaire sheet	100	Excellent

Furthermore, the fourth stage is implementation. The implementation stage is a test stage of products that have been validated by experts to be implemented in schools. However, the researcher did not carry out this stage because he only developed products until the quality test of interactive video materials on rights and obligations in Pancasila Education learning for phase B students in grade IV elementary school by media experts, material experts, learning experts, teacher responses and student responses to the developed products.

The last stage is evaluation. From the results of the analysis, revisions will be made in accordance with the suggestions and comments provided by expert validators. Comments and suggestions from media experts are adding information so that students answer questions first before interactive video playback continues, tidying up writing questions that arise, adding youtube logos, youtube names on interactive videos and uploading videos on

youtube. Comments and suggestions from material experts are adding the logo of the independent curriculum and the logo of Universitas Ahmad Dahlan as an identity, as well as adding descriptions or narrations to interactive videos. Comments and suggestions from learning experts, namely learning objectives and questions in interactive videos made into HOTS, changing nomenclature from PPKN to Pancasila Education. The assessment of expert validation, student response and teacher response is as follows.

Table 8. Media Quality Assessment Results Data

No	Valuation	Value	Category
1	Expert Validators	86,8	Excellent
2	Teacher's Response	100	Excellent
3	Student Response	96	Excellent
Sum		282,8	
Score / Grade		94,2	
Category		Excellent	

3. Conclusion

The development of an interactive video material on rights and obligations in learning Pancasila education for phase b students of grade IV elementary school using the ADDIE development model according to [11], namely analysis, design, development, implementation, and evaluation. However, the researcher only carried out 4 stages, namely analysis, design, development, and evaluation due to research time limitations. Interactive video of the material rights and obligations in learning Pancasila education for phase b students of grade IV elementary school based on media experts received a score of 94.5 with the category of "Very Good", material experts received a score of 91 with the category of "Very Good", learning experts received a score of 75 with the category of "Good", student responses received a score of 96 with the category of "Very Good", and the teacher's response got a score of 100 with the "Very Good" category, so that the overall score obtained was 94.2 with the "Very Good" category. So it can be concluded that the interactive video material on the rights and obligations of Pancasila education learning for phase b students of grade IV elementary school is quality to be used in the learning process in elementary schools.

Acknowledgment

The author would like to thank Universitas Ahmad Dahlan for the support provided.

Declarations

- Author contribution** : All authors contributed equally to the main contributor to this paper. All authors read and approved the final paper
- Funding statement** : None of the authors have received any funding or grants from any institution or funding body for the research
- Conflict of interest** : The authors declare no conflict of interest
- Additional** : No additional information is available for this paper

information**References**

- [1] Ubabuddin, "Hakikat Belajar Dan Pembelajaran Di Sekolah Dasar," *Journal Edukatif*, vol. 5, no. 1, pp. 18–27, 2019, doi: 10.37567/jie.v5i1.53.
- [2] A. M. Cahyadi, *Pengembangan Media dan Sumber Belajar*. Laksita Indonesia, 2019.
- [3] L. D. Putra, A. N. Azizah, B. T. Widiastuti, and S. I. Sari, "Pemanfaatan Media Video Dalam Pembelajaran Pancasila Kelas V Sd Muhammadiyah Bodon," vol. 10, pp. 398–406, 2023.
- [4] P. D. P. Julita., "Pemanfaatan Teknologi Sebagai Media pembelajaran Dalam Pendidikan Era Digital," *Journal of Educational Learning and Innovation (ELIa)*, vol. 2, no. 2, pp. 227–239, 2022.
- [5] A. Darlis, A. I. Sinaga, M. F. Perkasyah, L. Sersanawawi, and I. Rahmah, "Pendidikan Berbasis Merdeka Belajar," *Analytica Islamica*, vol. 11, no. 2, pp. 393–394, 2022.
- [6] R. K. Wardani and H. Syofyan, "Pengembangan Video Interaktif pada Pembelajaran IPA Tematik Integratif Materi Peredaran Darah Manusia," *Jurnal Ilmiah Sekolah Dasar*, vol. 2, no. 4, p. 371, Nov. 2018, doi: 10.23887/jisd.v2i4.16154.
- [7] A. Amaliah, "Implementation Of Edpuzzle To Improve Students," *Prosodi*, vol. 14, no. 1, pp. 35–44, 2020.
- [8] A. Khoirina and M. Arsanti, "Pemanfaatan Media Pembelajaran untuk Meningkatkan Hasil Belajar Siswa," in *Prosiding Senada (Seminar Nasional Daring)*, 2022, pp. 992–997.
- [9] L. I. Kasturi, S. Istiningsih, and M. Tahir, "Pengembangan Media Pembelajaran Video Interaktif Pada Mata Pelajaran Ilmu Pengetahuan Alam (IPA) Siswa Kelas V SDN 2 Batujai," *Jurnal Ilmiah Profesi Pendidikan*, vol. 7, no. 1, pp. 116–122, 2022.
- [10] R. Rahmawati, Khaeruddin, and A. Amal, "Pengembangan Media Pembelajaran Video Interaktif untuk Meningkatkan Hasil Belajar IPA Siswa Sekolah Dasar," *JUDIKDAS: Jurnal Ilmu Pendidikan Dasar Indonesia*, vol. 1, no. 1, pp. 29–38, 2021.
- [11] R. M. Branch, *Instructional Design: The ADDIE Approach*. Springer Science+Business Media, 2009.
- [12] I. Karisma and Hendratno, "Pengembangan Media Articulate Storyline 3 Untuk Meningkatkan Penguasaan Kosakata Bahasa Inggris Peserta Didik Kelas V Sekolah Dasar," *Jurnal Penelitian Pendidikan Guru Sekolah Dasar*, vol. 10, no. 5, pp. 1113–1112, 2022.
- [13] M. Yanto and U. L. Mangkurat, "Pengembangan E-Book Mata Kuliah Media Fotografi," *Journal of Instructional Technology J-INSTECH*, vol. 2, no. 1, pp. 24–31, 2021.
- [14] R. K. Wardani and H. Syofyan, "Pengembangan Video Interaktif pada Pembelajaran IPA Tematik Integratif Materi Peredaran Darah Manusia," *Jurnal Ilmiah Sekolah Dasar*, vol. 2, no. 4, p. 371, Nov. 2018, doi: 10.23887/jisd.v2i4.16154.

-
- [15] S. S. A. Kharis and H. A. Z. Arman, "Learning Analytics dan Educational Data Mining pada Data Pendidikan," *Jurnal Riset Pembelajaran Matematika Sekolah*, vol. 6, no. 1, pp. 12–20, 2022.