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Animated Video Media on Clean and Healthy Living Behavior in Elementary School

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Abstrak

Masih kurangnya sumber belajar yang dapat menginspirasi siswa sekolah dasar untuk mempraktekkan hidup bersih dan sehat. Penelitian ini bertujuan untuk menghasilkan produk pengembangan media video animasi menggunakan perangkat lunak berupa powtoon sebagai media pembelajaran di Sekolah Dasar. Subjek pada penelitian ini yaitu siswa kelas II dan III SD yang berjumlah 40 siswa. Teknik pengumpulan data pada penelitian ini adalah observasi, angket, dan wawancara. Analisis data menggunakan tiga tahap, yaitu reduksi data, penyajian data, dan penarikan kesimpulan. Validitas data menggunakan sumber dan metode. Pada penelitian ini guru memerlukan media pembelajaran yang berupa video animasi untuk menumbuhkan kesadaran siswa terhadap perilaku hidup bersih dan sehat khususnya dilingkungan sekolah. Hasil penelitian menunjukkan bahwa 90% siswa membutuhkan media video animasi yang memiliki tampilan media yang menarik pada bagian huruf dan bahasa. Gambar yang dapat mendukung penjelasan materi, adanya suara dalam media saat menjelaskan materi, terdapat animasi pendukung saat materi perilaku hidup bersih dan sehat disampaikan mendapatkan hasil presentase 87,5% siswa. 75% siswa membutuhkan media yang memiliki cakupan materi sesuai dengan kompetensi dasar disampaikan secara luas tetapi terbatas. 80% siswa membutuhkan media yang dapat diakses dimana saja dan kapan saja, guru serta siswa membutuhkan media yang memuat contoh dan latihan soal dalam media video animasi.

Kata Kunci: *Media, Perilaku Hidup Bersih dan Sehat, Video Animasi.*

Abstract

There is a lack of learning resources that can inspire elementary school students to practice clean and healthy living. This study aims to produce an animation video media development product using software in the form of powtoon as a learning medium in elementary schools. The subjects in this study were students of grades II and III of elementary school, totaling 40 students. Data collection techniques in this study were observation, questionnaires, and interviews. Data analysis uses three stages, namely data reduction, data presentation, and drawing conclusions. Data validity uses sources and methods. In this study, teachers need learning media in the form of animated videos to raise students' awareness of Clean and Healthy Behavior, especially in the school environment. The results showed that 90% of students needed animated video media that had an attractive media appearance in the letters and language sections. Images that can support the explanation of the material, there is sound in the media when explaining the material, there are supporting animations when the Clean and Healthy Behavior material is delivered to get a percentage of 87.5% of students. 75% of students need media that has material coverage in accordance with basic competencies that are delivered widely but limited. 80% of students need media that can be accessed anywhere and anytime, teachers and students need media that contains examples and practice questions in animated video media.

Keywords: Media, clean and healthy living, animated video.

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1. INTRODUCTION

Practicing cleanliness for children to stay organized is one way to motivate elementary school students to adopt clean and healthy behaviors. Parents and teachers must be trustworthy in training and integrating children as educators. Children who grow up in this environment are significantly more active in daily activities, develop strong immune systems, rarely get sick, and become intelligent adults. The foundation of education can be laid with daily tasks such as handwashing, brushing teeth, bathing, and disposing of trash in designated bins (Castro-Jiménez et al., 2020; López-Bueno et al., 2021; Safitri & Harun, 2020). Simple

actions like washing hands with soap, wearing masks, and consuming healthy food can also be done by children. "Clean and Healthy Living Behavior" (PHBS) is an individual effort followed by individuals, families, groups, and communities to promote learning experiences in maintaining cleanliness and health, ensuring a healthy body, strong immune system, and freedom from diseases (Tria Vilian & Minsih, 2021; Wardani et al., 2022). The practice of PHBS can be established through habits, as mentioned by. Habit formation includes: "Praying before and after meals, greeting people when meeting them, helping others, and maintaining personal cleanliness by brushing teeth, using the bathroom, and washing hands. Keeping the environment clean, properly disposing of trash, obeying school regulations, practicing religious beliefs according to one's faith, expressing gratitude when receiving something, respecting parents and elders, speaking politely and having a tidy appearance, arriving at school on time, and cleaning eating utensils after use" (Alifia & Hendriana, 2021; Loewenstein et al., 2016). Children in elementary schools often struggle with cleanliness, and when PHBS is not practiced, conditions such as worm infections, diarrhea, malnutrition, and other common ailments tend to arise (Freeman et al., 2013; Nurhjati, 2011)

Despite the PHBS development project running for quite some time, the government's preparation falls far short of expectations. There is still a lack of general public awareness about PHBS in Indonesia. The problem stems from the failure to achieve the goals of the PHBS program, particularly the low level of knowledge among the public regarding the importance of handwashing with soap. Since then, the practice has not become ingrained in society (Paneo et al., 2022; Yuliani et al., 2021). Vegetables and fruits are still considered by the public as mere complements, whereas they should be regarded as balanced staple foods, according to health promotion initiatives in healthcare facilities, which have found that many people do not wash their hands with soap before eating. The lack of implementation of PHBS will have a detrimental impact on both the community and the educational environment, including the spread of various diseases (Mardhiati, 2019; Tria Vilian & Minsih, 2021).

Based on interviews and initial observations at SDN Dukuh 02, the learning process becomes inefficient, primarily due to a lack of learning resources that can inspire elementary school students to practice clean and healthy living. The teacher provided an example of many students littering as evidence that many students are not concerned about the environment. To maximize the learning objectives while adopting PHBS, it is important for parents and teachers to collaborate in educating, teaching, and nurturing children as they learn, especially since the school has provided trash bins in front of each classroom. This behavior causes the school environment to become dirty, and many students, especially those in lower grades, do not have a proper understanding of the food they purchase at school. In addition to instructors feeling that providing guidance alone is not enough, animated films are needed to help students better understand the importance of PHBS (Improving Clean and Healthy Living Behavior). Learning media that meet the demands of learning activities will be used to develop effective and efficient learning activities, allowing students to acquire the maximum content from their teachers (Cook & Dupras, 2004; Pranata & Dewi, 2022; Ruiz et al., 2006). Children in the elementary school age range are interested in animated videos, especially those featuring child-friendly cartoons. Researchers have created educational animated video content for elementary school children as a solution to the problem. With the use of animated films, elementary school students can engage in the educational process and grasp the presented material. This study aims to produce an animation video media development product using software in the form of powtoon as a learning medium in elementary schools.

2. METHODS

This type of research is qualitative in nature. This study was conducted in Sukoharjo Regency, specifically at SDN Dukuh 02. Twenty students from the second grade and twenty students from the third grade were selected as research subjects. Data from field observations, closed-ended written questionnaires distributed to the participants, and interviews were used for the research. The questionnaire analysis requirements used in the study, and here is the interview guideline as show in Table 1.

Table 1. Interview Guideline

No	Aspect	Indicator
1	Learning Clean and Healthy Living Behavior	Implementation Obstacle Perspective Student comprehension
2	Learning Media	Media forms Usage obstacles Media inventory Efforts made by teachers to accommodate media needs Topic coverage in the media

The most popular method of obtaining data for survey research is through interviews and questionnaires. Face-to-face, unstructured interviews were used for this investigation. Media standards for animated videos and the use of media in the classroom will be discussed with the second and third-grade teachers. Several research questionnaire items for teachers and students in the second and third grades at SDN Dukuh 02 align with the research objectives. For multiple-choice questions, they use "yes," "no," and several other options. Conclusions about the value of animated video media for students will be formed based on these observations. Questionnaire analysis needs framework is show in Table 2.

Tabel 2. Questionnaire Analysis Needs Framework

No	Indicator
1	Forms of Media
2	The Use of Media during Learning
3	The Need for Animated Video Media to Present Content
4	The Need for Animated Video Media Related to Content
5	Knowledge about Clean and Healthy Living Behavior (PHBS) Content
6	Enthusiasm for Animated Video Content

The questionnaire for needs analysis was distributed to schools to gather data on students' needs for learning media to support the learning process. Descriptive and qualitative analysis of the research data was conducted. Interviews with teachers and students are part of the triangulation approach, which the researcher uses to collect data from multiple sources. As a result, only one source is used in the triangulation of research approach/method, while multiple interview techniques and tests are used. The data analysis will be conducted in three stages, including: (1) data reduction, which is done before the researcher presents a summary of the findings, (2) data presentation, where the researcher organizes the data to provide visual representations of the investigation, (3) The researcher verifies the data and findings, where the research objectives are established (Miles et al., 2014). The research data is derived

from observations, distributed surveys, and interviews. The statistical approach used in the needs analysis is percentages. The categories have been added to the translated presentation as show in Table 3.

Tabel 3. Guttman Scale Percentages

Percentages (in %)	Categories
0-1	Not Found Yet
2-25	Minority
26-49	Less than Half
50	Half
51-75	More than half
76-99	Majority
100	All

If the proportion from the needs analysis questionnaire is more than 50%, it can be assumed that 50% of the students require video animation materials. The Multimedia Development Life Cycle method is used to develop software applications is show in Figure 1.

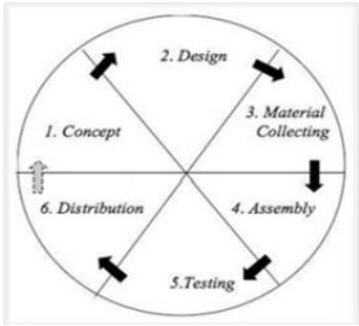


Figure 1. Multimedia Development Life Cycle

Base on Figure 1 the stages of implementing the Multimedia Development Life Cycle is begins with the design of the instructional video, which is in the form of animated video on Healthy and Hygienic Living Behavior, starting from the theme, concept, and material that have been planned. After the basic concept is prepared, the instructional video will enter the design stage, which involves creating a storyboard. Storyboard is an essential component of the video production process as it serves as a reference point during the design phase. The storyboard for the video is presented in the Figure 2.

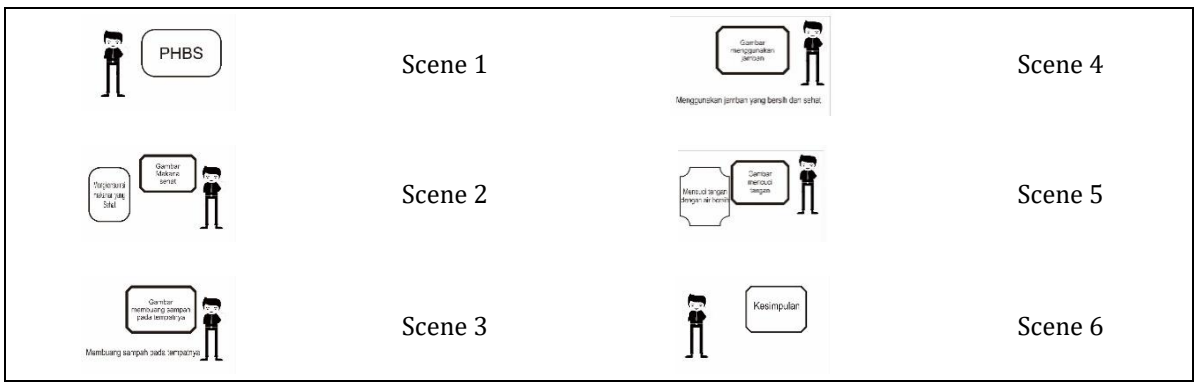


Figure 2. Storyboard Design

Information about Healthy and Hygienic Living Behavior (PHBS) and the equipment used for video production can be obtained at this stage.The stage when the video production mechanism begins. The production process is carried out according to the prepared storyboard for the steps that have been determined. During the process, evaluation is conducted to ensure that the final outcome aligns with the initial concept from the ideation and design stage. Instructional materials are prepared. The process then moves back to the assembly stage to make necessary adjustments if the results are not as expected. This testing phase, sometimes referred to as "alpha testing," is performed by the manufacturer or within the company's facilities. The main focus of this testing is on the program's functional requirements. Once the application receives approval, distribution can begin. The program will now be stored on storage media such as a flash drive, smartphone, or website. The assessment stage is part of this process. Evaluation is necessary to refine the previously produced items. The completed application is then forwarded as teaching materials to relevant research schools.

3. RESULTS AND DISCUSSION

Result

The results of the questionnaire were used to identify the needs for creating animated video materials to promote a healthy and clean lifestyle among 20 students from Class II and 20 students from Class III at SDN Dukuh 02. An overview of the responses from teachers and students regarding the need for video animation media was obtained through 20 questions, each with response options including "yes," "no," and other possible answers. This provides an explanation of how the results of the students' needs questionnaire were analyzed, as follows:

Validation of the result

The validation of the developed video animation media involved two expert validators, including a lecturer and two teachers who are experts in their respective fields, to evaluate the content of the video animation. Two professionals, Lecturer 1 and Teacher 1, verified the video animation product media with a graphic suitability assessment. To determine the acceptability of the video animation media for promoting Healthy and Clean Living Behavior, media validation was conducted.

Product testing

Product testing was conducted with 20 students from Class II and 20 students from Class III at SDN Dukuh 02. This study served as a benchmark to assess the usability of a product. The product testing was conducted in two different settings: limited group testing and outdoor testing. During the short trial period, participants were given a questionnaire with six evaluation criteria. These criteria included the type of media, usability for learning, the importance of video animation media for presentation and content, understanding of PHBS material, and interest in video animation media.

The Use Of Media During Learning

The use of media during the learning process can enhance learning outcomes, facilitate understanding of abstract concepts, help students concentrate, foster creativity, and make learning more enjoyable. According to the statistics, two teachers utilize media to aid students' learning, and 38 students stated that their teachers also use media during teaching. If

converted into a presentation format, it would be displayed as percentages. Currently, 95% of students and 100% of teachers use media during teaching. These percentages fall under the category of most teachers utilizing media and the majority of students using media for learning. The presentation of the findings demonstrates that media is utilized by instructors and students to enhance learning.

The Requirements Of Animated Video Media In Terms Of Content Appearance

Media creation for education will adapt to this objective by ideally stimulating students' interest and enhancing their understanding by considering the demands of instructors and students in terms of material presentation. The following quantitative information is provided for the purpose of content delivery. The data reveals that 2 instructors and 36 students agree that selecting the appropriate media is crucial, and the effective use of language in media also has a significant impact on students' attention. 35 students and 2 teachers were the result of using visual, auditory, and animated media. As a consequence of creating media utilizing WiFi/data packages during that duration, 30 children and 2 professors provided feedback. According to the results, 32 students and 2 professors answered "yes" to the convenience of accessing media from anywhere.

It can be observed that, when presented in percentage form, 90% of students and 100% of teachers demand the use of acceptable language and font selection in animated video material. Students constitute 87.5% of the audience's preference for graphics, music, and animated media presentation, while teachers make up 100% of it. The following percentage results indicate that 75% of students and 100% of professors require access to WiFi and data packages to produce animated video content. Furthermore, 80% of students and 100% of instructors need easy access to media anywhere for progress to occur. It demonstrates that all teachers and a few or many students need to create animated video media in order to determine or select appropriate media appearances for the preferred delivery of course material, making it easily understandable for students, and facilitating their access to animated video media from anywhere.

The Requirements Of Animated Video Media In Terms Of Content Material

The self-learning curriculum is analyzed in terms of its requirements to be used in the independent curriculum media. To examine the structural ideas of the Clean and Healthy Living Behavior material that is adapted to basic skills and utilized in the presentation of animated video media, an analysis of the material structure is needed. The following quantitative information outlines the requirements of animated video content in terms of content material.

According to the data, 30 students and 2 teachers agree that the content in animated video media should align with basic skills and be delivered as a whole, but with limitations. The content in animated video media should also cater to the age of the students, as demonstrated by the feedback from two teachers and forty students. Additionally, the animated video media content should include practice exercises and sample questions. "Yes" was the response from 32 students and 2 teachers. The percentage of 100% teachers and 100% students agree that there is a need for content suitable for the age of the students. Furthermore, some sample questions and exercises should be included in the media content used by all teachers and 80% of students. The majority of students and all teachers require materials provided in line with basic competencies, but in a concise form. The material is also tailored to the age of the students, and the animated video media is accompanied by sample questions and practice exercises.

Interest in animated video media

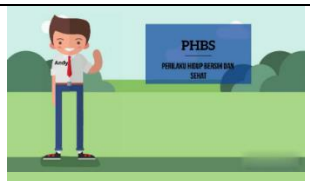
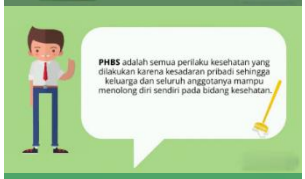
According to the research activity, 80% of students and 100% of teachers support the creation of animated video content to help children realize the importance of clean and healthy living. Quantitative information regarding the interest of teachers and students in animated video media is shown in the table below. A total of 32 students and 2 teachers require animated video material as an additional learning tool to deepen students' understanding of clean and healthy lifestyles. The most popular category is indicated by the percentage, leading to the conclusion that the majority of educators and students require animated video content. The Results of the needs analysis questionnaire is show in Table 4.

Table 4. The Results of Needs Analysis Questionnaire

No	Indicator	Quantity		Precentage		Category
		Teacher	Student	Teacher	Student	
1	Types of media	2	36	100%	90%	The Majority
2	The use of media during learning	2	38	100%	95%	The Majority
3	The requirements of animated video media in terms of content appearance	2	36	100%	90%	The Majority
4	The requirements of animated video media in terms of content material	2	32	100%	75%	The Majority
5	Understanding the material on Clean and Healthy Living Behavior	2	34	100%	85%	The Majority
6	Interest in animated video media	2	32	100%	80%	The Majority

This media serves as a learning tool for teaching students in the second and third grade of SDN Dukuh 02 about maintaining a clean and healthy lifestyle. The media takes the form of animated videos, which are engaging and aim to cultivate students' interest and foster their sense of responsibility in monitoring personal hygiene and the cleanliness of their surroundings. It is hoped that this media will be beneficial for the learning process of second and third-grade students at SD N Dukuh 02. Storyboard creation is an essential part of the process at this stage, involving the design of content. In the section on media and learning resources, the animated objects that serve as supporting images should be discussed first. This is the stage where learning resources are collected. The soundtrack for the instructional product refers to the audio component. In order for the instructional media to function properly, the production procedure is now being carried out in accordance with the previously created storyboard from the previous stage. This includes the creation of instructional media regarding clean and healthy living behavior. The result of making learning media is show in Table 5.

Table 5. The Results of Making Learning Media

No.	Picture	Description
1		Introducing the assistant and title
2		Description of Clean and Healthy Living Behavior (CHLB)
3		Explanation on how to choose healthy food in the school cafeteria
4		Explanation on the proper way to dispose of garbage
5		Explanation on how to use a toilet and how to maintain its cleanliness
6		Explanation of the proper steps for washing hands in the correct order

During the testing phase by media experts, the following results were obtained as show in Table 6.

Table 6. Results of the Alpha Test phase

No.	Description	Status
1	Was the testing on the animated video successful	as intended
2	The animation shots were taken according to the storyboard and theme.	as intended
3	The testing of video playback using a computer or smartphone video player went smoothly.	as intended

The instructional materials were stored on a YouTube platform during the production phase, and afterwards, the materials were sent to the teachers at SD Negeri Dukuh 02 for use as teaching aids for Clean and Healthy Living Behavior.

Discussions

Animated video media can display still images that appear lively and have audio in the form of audiovisual. The moving photos, universally appealing characters, and sound in animated video media make it very engaging for elementary school children and have an

impact on their cognitive development and motivation. Previous study found that animated video media helps children or students in learning because it is easier for them to understand and imitate in teaching clean and healthy living practices (Fatimah & Santiana, 2017; Ibrahem & Alamro, 2020). The accessibility of computer laboratories and LCD/projectors at SDN Dukuh 02 is excellent. When teaching the topic of Clean and Healthy Living Behavior, teachers require supporting materials. Animated videos, PowerPoint presentations, and YouTube videos are the most commonly used types of instructional media. Classroom obstacles - most students did not encounter any. Teachers are interested in creating animated video content that can help students learn about Clean and Healthy Living Practices (Astuti et al., 2021; Hardiyanti et al., 2020). Using real-life examples from daily activities, such as videos and images, will attract the interest of most students in their learning process.

Teachers believe that animated videos should be used to interpret information based on interview results regarding clean and healthy living behavior. Students will be more interested in learning about clean and healthy living behavior if animated videos are used in the learning process. In these videos, the utilization of animation combines sound, images, depictions, movements, and more. Similarly, animated video materials should be created based on the needs and desires of students and educators, including aspects such as the external appearance of the material, composition, and related activities or assessments (Alfianti et al., 2020; Munawaroh, 2019). This will provide confidence to students and educators to help them learn and build an understanding of how to live a clean and healthy life because it is created with the consideration of the needs of educators and students. This aligns with the findings of previous study which suggest that incorporating media into the learning process can be advantageous and significantly improve student learning outcomes (Hairida, 2019; Sekarwangi et al., 2021).

Based on the findings of the needs analysis from teacher interviews and surveys sent to teachers and students, instructors regularly use animated videos as a media in the learning process. Students can engage in guided lessons by teachers and minimize boredom by having access to visual and audio materials (Blilat & Ibriz, 2020; Cress et al., 2019). According to the teachers, the learning materials used are considered very effective for students in grades II and III. Meanwhile, according to the percentage data related to the use of instructional media, it is indicated that the elementary school has already implemented the use of instructional media during teaching and learning. This demonstrates a 100% impact rate for educators and 95% for students who participate in the learning process after utilizing various forms of instructional media. This aligns with the findings of the study conducted by previous study that the use of innovative instructional media by teachers has evolved as a result of technological advancements (Qodr et al., 2021). All teachers agree that technology-based interactive instructional media (IT) should be used in the classroom to help students learn. In the conducted research, the factors influencing the effectiveness of the learning process are influenced by the type of media chosen and the application of educational methods in the teaching and learning process (Cress et al., 2019; Zhampeissova et al., 2020).

The results of the needs analysis questionnaire indicate that in order for the media to be used in the future, animated video media connected through content display is needed to fulfill the desires of teachers and students. Based on the percentage data, 100% of teachers and 90% of students agree that students will be assisted by using appropriate fonts and clear and concise wording in the learning materials. Meanwhile, 100% of teachers and 87.5% of students indicate the need for media to present visuals, audio, and animations. Additionally, the percentage results show that the creation of animated video media requires the provision of duration and the utilization of Wi-Fi or data for 75% of students and 100% of teachers. The percentage of teachers and students requiring easy access to media anywhere is 100%, while the percentage of students is 80%. This is consistent with the findings of other study on

the improvement of instructional videos, which are: 1) The need for attractive videos of teachers delivering materials in the classroom with background and animations to achieve educational goals. 2) As content material, students require readings that include text, images, or graphics, as well as content that helps them learn concepts and formulas (Rohmah & Bukhori, 2020). Tasks for the video should include links to interactive games. The creation of animated video content helps enhance students' understanding of teacher instructions. The results of the student knowledge questionnaire show that 85% of students already have a comprehensive understanding of the subject of Clean and Healthy Living Behavior. This highlights the need for more engaging video content to support the development of children's understanding. It is evident that both groups are highly motivated to achieve this, as 85% of students and all teachers express their interest in creating animated video content to enhance students' understanding of the Clean and Healthy Living Behavior curriculum. This aligns with the research which indicates that the use of educational media that creates enjoyable experiences can encourage active participation in the information reception process, leading to changes in perspectives, information, behaviors, and lifestyles (Lastari & Silvana, 2020; Pahenra et al., 2022).

Based on the needs analysis, teachers and students in grades II and III at SDN Dukuh 02 still require the creation of creative and innovative animated video media that can enhance learning and help children understand the value of clean and healthy lifestyles. The results of meetings and surveys have proven this, demonstrating the importance for teachers and students to have appropriate animated video content. The creation of animated video content needs to consider several factors, including selecting the right font, using proper Indonesian language, incorporating images, audio, and animations in the media, enabling easy access to audio-visual content anywhere, providing sufficiently long audio-visual content, creating content that aligns with the students' age-appropriate competencies, and including sample questions and exercises to measure how well students understand what they have learned (Barbara & Bayu, 2021; Soeoed et al., 2018).

The questionnaire results explain that both teachers and students have a high level of enthusiasm for the development of instructional media. Teachers have a percentage of 100%, and students have a percentage of 80% in their interest in animated video media. Instructional media is the most important aspect in the teaching and learning process as it facilitates students' understanding of the subject matter. According to previous study teachers use various school supplies as teaching aids for their students (Pramestika et al., 2020). Media encompasses audio, images, multimedia, and audio-visual components. Learning media involves the use of visual and auditory elements. Multimedia systems include data transmission systems that can convey text, images, videos, audio, numbers, and words, among other types of information (Tiarasari et al., 2018; Uygarer & Uzunboylu, 2017). Users function as data controllers, while computers process input as digital data. Learning media plays a crucial role in the implementation of globalization in the modern world. Therefore, the use of intelligent learning materials is necessary to enhance students' learning outcomes.

4. CONCLUSION

Based on the findings of the conducted activities, it can be concluded that the development of animated video media in SDN Dukuh 02 for the topic of Clean and Healthy Living Behavior indicates the following: a) The majority of students desire the development of animated video media that pays attention to visual aspects, such as selecting appropriate font types and using suitable language. b) The majority of students require animated video content that can be accessed anytime and without the need for Wi-Fi. c) All educators require animated video content that includes examples and exercises, provides comprehensive yet

concise information tailored to the students' age, and aligns with the core competencies, benefiting both teachers and students. Therefore, it can be said that the media is highly suitable for use in the school.

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