

SAC INTERACTIVE LEARNING MEDIA FOR IMPROVING LEARNING OUTCOMES BUILDING IDENTITY IN DIVERSITY FOURTH-GRADE STUDENTS

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Abstract

This study was motivated by the low learning outcomes of students in Pancasila education due to the lack of innovation in the learning process. Therefore, this study aims to develop interactive SAC learning media on the subject of building identity in diversity to improve the learning outcomes of fourth-grade elementary school students. This study is a 4D model Research and Development applied at SDN 057224 Paluh Gusta. The data used came from questionnaires for experts on material, media and language for feasibility, questionnaires on practicality from teachers, and tests for student learning outcomes. The results showed that the interactive SAC media for building identity in diversity had a material expert feasibility rating of 90%, classified as 'Very Good', a media expert rating of 92%, classified as 'Very Good' and 91% classified as 'Very Good' for language experts, while the level of practicality obtained was 93% classified as 'Very Practical'. Student learning outcomes improved from a pre-test score of 65 to a post-test score of 90, and the gain test result was 0.714, which is 'Very High'. Therefore, the interactive learning media SAC material on building identity in diversity that was developed is appropriate and valid and is able to improve student learning outcomes. Applying this interactive learning media SAC in the learning process in the classroom will make the learning atmosphere even better and more effective, and this study contributes greatly to the development of technology in education today.

Keywords: learning media; development; SAC

Abstrak

Kajian ini dilatarbelakangi rendahnya hasil belajar pendidikan pancasila siswa yang disebabkan belum adanya pembaharuan dalam proses belajar, sehingga kajian ini bermaksud mengembangkan media pembelajaran interaktif SAC materi membangun jati diri dalam kebhinekaan guna meningkatkan hasil belajar siswa kelas IV sekolah dasar. Kajian ini merupakan Research and Development bermodel 4D yang diterapkan di SDN 057224 Paluh Gusta. Data yang digunakan berasal dari angket ahli materi, media dan bahasa untuk kelayakan, angket kepraktisan dari guru serta tes untuk hasil belajar siswa. Hasilnya media interaktif SAC materi membangun jati diri dalam kebhinekaan menunjukkan tingkat kelayakan ahli materi 90% terklasifikasi "Sangat Baik", ahli media 92% terklasifikasi "Sangat Baik" dan ahli bahasa 91% terklasifikasi "Sangat Baik" serta tingkat kepraktisan diperoleh 93 terklasifikasi "Sangat Praktis" serta hasil belajar siswa mengalami peningkatan dari skor pretes 65 menjadi posttest 90, dan hasil uji gain bernilai 0,714 "Sangat Tinggi". Sehingga, media pembelajaran interaktif SAC materi membangun jati diri dalam kebhinekaan yang dikembangkan layak dan valid serta mampu meningkatkan hasil belajar siswa, dengan menerapkan media pembelajaran interaktif SAC ini dalam proses belajar di kelas akan membuat suasana belajar menjadi lebih baik lagi dan efektif serta kajian ini berkontribusi besar terhadap perkembangan teknologi dalam pendidikan era kini.

Kata Kunci: Media Pembelajaran; Pengembangan; SAC

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Introduction

The development of science and technology in the current era is bringing about many changes and influences in all areas of life, including the world of education. Education is an effort that involves students, teachers, and facilities that need each other to advance life in

achieving its goals (Setiawan & Dan, 2022). Education is also described as a process of transferring intelligence, skills, and extraordinary virtues (Akbar et al., 2022). With the advancement of time, education has undergone rapid changes, so teachers must adapt to these changes in the teaching and learning process to achieve the desired goals. Education plays a crucial role in fostering awareness of diversity and the importance of respecting differences among individuals. In this context, the independent curriculum—a self-directed learning approach based on existentialist principles—can provide students with the appropriate space to delve into learning materials related to building their identity within diversity (Mutia et al., 2022). Through an interest and talent-based approach, students can choose and explore specific subjects related to diversity and tolerance. As a result, their understanding of the importance of valuing differences and fostering tolerance in daily life continues to develop (Indarta et al., 2022). According, through the independent learning curriculum based on existentialism, students are also given the freedom to explore their own potential (Fallensky, 2021). They can explore their interests and talents related to diversity. For example, students who are interested in art or culture can choose subjects that focus on the arts and culture of various ethnic or religious groups. This not only provides them with broader knowledge about diversity but also helps them build a strong sense of identity and appreciate differences in society, with learning materials focused on building identity in diversity, it is hoped that students will grow into more tolerant, open-minded individuals who can interact well in a multicultural society (Nasution & Setiawan, 2020). They will have a deeper understanding of the values of equality, mutual respect, and justice. Thus, education can be an important means of shaping individuals who contribute positively to the development of a harmonious and sustainable society (Yaelasari & Yuni, 2022).

Therefore, an innovative and interactive learning approach is needed to help students understand and internalise the learning material. One approach that can be applied is an active learning approach where students are actively involved in learning through discussions, experiments, role-playing, or projects. With this approach, students can build a deeper and more relevant understanding of the material, enabling them to internalise and apply the concepts taught more easily (Zahara et al., 2022). Additionally, the use of technology in learning can also be a solution to improve students' learning outcomes in this subject. The use of multimedia, videos, gamification, or interactive applications can make learning more interesting and make it easier for students to understand abstract concepts. Through visualisation and direct experience, students can be more actively involved and have higher motivation in learning the material. Thus, learning methods that use technology can provide a more enjoyable and effective learning experience for students (Clarisa et al., 2023). According to in efforts to improve student learning outcomes in this subject matter, the role of teachers is also very important (Indah & Kasman, 2021). Teachers need to act as facilitators who support and encourage students in developing their understanding. Additionally, teachers can introduce variety in teaching methods, accommodate different learning styles, and provide constructive feedback to students. With the active and supportive role of teachers, students can feel more motivated and confident in facing complex learning materials (Dewi & Fauziati, 2021)

Based on observations conducted at SDN 057224 Paluh Gusta School. This school is implementing the Merdeka curriculum and has facilities that support research. In addition, the classroom teachers at this school have a desire to innovate in the learning process. However, learning at the school is not yet optimal, especially in terms of test scores on the material on building identity in diversity at SD Negeri 057224 Paluh Gusta, which are still unsatisfactory.

It appears that student learning outcomes have not reached the predetermined KKTP of 75. Out of 30 students, 19 (63%) scored below the KKTP with an average of 65, while the remaining 11 (37%) students had an average score of 80. This achievement is not in line with the school's established goals, so serious attention is needed to address this issue, such as using interactive learning media in the learning process. Furthermore, the class teacher in Civic Education stated that there are several challenges faced in delivering the material, one of which is student boredom. The cause of this boredom is the lack of variety in delivering the material and the underutilization of school facilities. At SD Negeri 057224 Paluh Gusta, the use of SAC learning media is still minimal in the teaching and learning process conducted by teachers. The methods applied by teachers at this school tend to be monotonous and lack variety, including in the use of learning media. Additionally, one of the challenges faced in delivering the material is student boredom.

SDN 057224 Paluh Gusta, located in Paluh Gusta Hamlet, Langkat Regency, has many other problems such as a lack of supporting facilities such as proper classrooms, libraries, and technological equipment. This can affect the quality of learning and student comfort. The quality of education in rural or remote areas is often different from that in urban areas. This can affect students' ability to compete and reach their full potential. Furthermore, there are difficulties in accessing adequate educational resources, such as textbooks, technology, and the internet. This can hinder the learning process and student development. Therefore, in this context, SAC can be very important in helping to overcome challenges such as helping to improve access to quality educational resources for students in remote areas, helping to improve the quality of learning by providing interactive learning materials that are relevant to students' needs, and helping to reduce the gap in the quality of education between urban and rural areas by providing equal access to quality educational resources. Thus, SAC can be an effective solution in improving the quality of education and overcoming the challenges faced by SDN 057224 Paluh Gusta and other schools in remote areas.

The development of SAC interactive learning media is highly relevant in today's education industry. In the era of digital and information technology, the use of interactive media has become a trend in the learning process. This media can improve the quality of learning in a more interesting and effective way (Ismail et al., 2023) With animations, audio, video, and other interactive elements, learning media can actively engage students and facilitate deeper understanding. Additionally, interactive media can address challenges typically encountered in conventional methods, such as student boredom or lack of interest in the learning material. This view aligns with that learning media provides practical contributions, particularly in the implementation of the learning process by teachers, as it simplifies the delivery of material (Hidayat & Mulyawati, 2022).

Learning media is expected to find more effective patterns in learning, so that each learning material can be presented in an interesting, effective, memorable, and applicable way for every subject. This view also aligns, who describe learning media as a tool that assists the teaching and learning process and serves to clarify the meaning of the message being conveyed, thereby enabling learning objectives to be achieved more effectively and perfectly (Arnandi et al., 2022). In the use of technology, students can learn by viewing materials, videos, images, and practical exercises. Additionally, students can practise through exercises and quizzes consisting of multiple-choice questions. With the help of computers, educational media can present PKn materials in an engaging manner through illustrations, graphs, and animations. In developing educational media with the help of computers, interactive computer demonstration applications required (Maula & Fatmawati, 2020). Describe several software

applications related to this, including Adobe Flash Player, Macro Flash Player, Macro Flash MX, Macromedia Captivate, and Smart Apps Creator (SAC). One of these applications that can be used to create simulations or animations is SAC, which allows the creation of various types of animations, presentations, games, and learning tools (Khasanah & Rusman, 2021).

In the planning of media development, it is hoped that attractive and unique products can be produced by applying learning media using SAC, which is one of the computer software for designing animations. SAC has many advantages in the learning process, including improving the teaching system, comfort, ease of teaching, and saving time (Mahuda et al., 2021). In the learning process using SAC, students not only imagine but can also directly see the concepts explained by the teacher. Thus, learning materials can be presented comprehensively and attractively, saving time, and animations in SAC learning media will enhance students' learning interest and outcomes in Grade 4 at SD Negeri 057224 Paluh Gusta.

To understand students' needs in learning using SAC media, a needs analysis is required. In designing learning, an analysis of target needs and learning needs is necessary. An example of target needs is what students need to do in a given situation (Rafiska & Susanti, 2023). Meanwhile, an example of learning needs is what students need to do to learn. There are several ways to identify these needs, such as comparing current knowledge with required knowledge, and understanding objective and subjective needs (Trinaldi et al., 2022). Information about objective needs can be collected through questionnaires, personal interviews, data collection such as exam papers and textbooks, and analysing this data. That observing students in their daily lives, consulting with teachers and students, and using tests can also provide information about objective needs (Yusnadi et al., 2020). Subjective needs can be identified through self-assessment using questionnaires, rating scales, and interviews. By conducting this needs analysis, students' needs in learning with SAC media can be understood more deeply. In line with the presentation of this issue, the author will develop interactive SAC learning media on the topic of building identity in diversity to improve the learning outcomes of fourth-grade elementary school students in order to support the implementation of independent learning and the independent curriculum .

In addition, another problem that occurs is the limitation of learning media, such as the learning media currently used may not be interactive and interesting enough to improve student learning outcomes. Lack of technology utilisation, the use of technology in learning is still limited, so it is necessary to develop interactive learning media that can improve student learning outcomes (Husna et al., 2023). The learning media currently in use may not be interactive and engaging enough to improve student learning outcomes in the subject of building identity in diversity. Additionally, the use of technology in education remains limited, necessitating the development of interactive learning materials that can enhance student learning outcomes (Maulana, 2025). Furthermore, fourth-grade elementary school teachers and students require innovative and engaging learning materials to improve learning outcomes in the subject of building identity in diversity (Saputro & Miftahuddin, 2024). However, there has been limited research conducted on the development of interactive learning materials based on Smart Apps to enhance student learning outcomes in the subject of building identity in diversity. Furthermore, there is a need for innovative learning media, as students require innovative and engaging learning media to improve learning outcomes in the subject of building identity in diversity. Thus, this research has novelty, such as the development of interactive learning media based on Smart Apps that can improve student learning outcomes in the subject of building identity in diversity (Puspitasari et al., 2022). The

use of SAC technology in the development of interactive learning media can improve the quality and effectiveness of learning, and the SAC-based interactive learning media developed can serve as an example of an innovative and engaging learning approach to improve student learning outcomes. Thus, this research can contribute to the development of education in primary schools and improve student learning outcomes in the subject of building identity in diversity.

Research Methods

This research is research and development, defined as a form of research that produces products, which are then tested to determine their feasibility, validity, practicality, and effectiveness (Daryanto, 2020). Research and development is also a process that aims to create or improve existing products to support or improve the learning process in the classroom (Sugiyono, 2020). In this study, the 4D development model (Define, Design, Develop, Disseminate) was applied, with the stages consisting of define, in which this stage sought to define the problems and needs in the learning process at SDN 057224 Paluh Gusta. Next, design, in which this stage sought to design interactive learning media products based on Smart Apps Creator. Then, Develop, which is developing interactive learning media products based on Smart Apps Creator. Finally, disseminate, which aims to test the product at SDN 057224 Paluh Gusta with 30 fourth-grade elementary school students as research subjects. This research was conducted at SDN 057224 Paluh Gusta with 30 fourth-grade elementary school students as research subjects. The research instruments used were expert questionnaires to assess the suitability of the developed product in terms of content, media, and language. Then, teacher evaluation questionnaires were used to assess the practicality of the product, and finally, student test sheets were used to determine student learning outcomes and the effectiveness of the product. Data were analysed using a quantitative descriptive method, which involved presenting or explaining the assessment results and learning outcomes to determine the suitability, practicality, and effectiveness of the product. Thus, this study can determine whether the interactive learning media product based on Smart Apps Creator is suitable, practical, and effective for implementation in the learning process at the elementary school level.

Result and Discussion

This research produced an interactive learning media product called SAC, which focuses on building identity in diversity to improve the learning outcomes of fourth-grade elementary school students using the 4D model (Define, Design, Develop, and Disseminate). The presentation of trial data explains the results of the feasibility, practicality, and effectiveness of the product development in the form of interactive SAC learning media on building identity in diversity. The validity results of the interactive SAC learning media development on building identity in diversity include expert assessments of the material, media, and language to determine the product's feasibility. Then, to determine the practicality of the product, it was assessed by teachers, and the product was tested to determine its effectiveness.

a) define

At this stage, the requirements for development are established and defined, such as the basic needs for developing interactive SAC learning media for fourth-grade students at SDN 057224 Paluh Gusta. Therefore, several different analyses are required to identify the underlying issues, namely needs analysis, environment or facilities, and learning. To analyse student needs, a basic needs instrument for students is applied. At this stage, observations

were conducted in the fourth grade of SDN 057224 Paluh Gusta to gain an understanding of learning styles, cognitive levels, and the challenges faced by teachers in the classroom. Based on the observation results, it was found that the average scores of fourth-grade students in Pancasila education, particularly in the material on building identity in diversity, were still low. Furthermore, interviews with teachers also revealed that the low learning outcomes in Pancasila lessons were due to students' lack of concentration during lessons, resulting in scores that were not optimal or lower than those in other subjects. In line with the questionnaire results, it was also found that students stated that Pancasila lessons were still difficult when using print media and that they needed other media, such as digital media.

b) design

The design of SAC interactive learning media has a framework that must be designed, such as the creation of design concepts, media, and scripts. The target users are students aged 10 years and above, and the learning media aims to advance education. When applied by students, teachers can connect to laptops or computers and other digital devices to use SAC interactive learning media in the classroom. The resulting media concept is software that shares links with users so they can use the media anywhere and anytime. The shooting script is the complete script for the SAC interactive learning media, which includes detailed descriptions of each material, music, sound effects, instructions, image and sound connections, animations, and evaluations that are interconnected to facilitate the use of the interactive learning media.

c) develop

This involves several important processes, including production, implementation, and assessment and evaluation. During the production process of the SAC interactive learning media, the product is created and integrated into the software. The production stage itself includes steps such as collecting materials to be included in the interactive learning media and creating the framework/structure for using the learning media. After the interactive learning media SAC material on building identity in diversity was completed, it was followed by product implementation to determine the feasibility, practicality, and effectiveness of the developed product. In implementing the product, product testing was carried out on subject matter experts, media, and language to determine the level of product feasibility. It was then tested with teachers to assess its practicality and with students to assess the effectiveness of the developed product.



Figure 1. Initial display of SAC interactive learning media

This display shows the title, the grade level for which the media is intended, and instructions for starting to use the media



Figure 2. Menu display

This display shows the topics that will be discussed in the SAC interactive learning media. It also includes a menu with learning outcomes, learning objectives, learning objective flow, materials, learning videos, evaluations, developer profiles, and a bibliography.



Figure 3. Instructions display

This display provides instructions for using the SAC interactive media, which are useful for helping users access or apply this media.



Figure 4. Content Display

This display contains the content to be discussed in the SAC interactive learning media. The content used is derived from learning outcomes and learning objectives, aligning with students' abilities.



Figure 5. Evaluation

This display contains evaluations or tasks for students or users after using the SAC interactive learning media, aiming to assess students' understanding of the material studied.

d) disseminate

Furthermore, the interactive learning media SAC on building identity in diversity was field-tested with fourth-grade students at SDN 057224 Paluh Gusta. Before the interactive learning media SAC was implemented with students, tests were conducted to determine the students' initial scores or measure their cognitive understanding of the material on building identity in diversity before using the interactive learning media. The tests consisted of pre- and post-tests. The implementation of the interactive learning media SAC on building identity in diversity was conducted in one session with a time allocation of 90 minutes. Then, in the final assessment stage, the suitability of the product was evaluated through expert testing of the material, media, and language. The product suitability test aimed to present the level of product suitability, while practicality was assessed by teachers, and the effectiveness test aimed to evaluate the level of product effectiveness. The results of the data analysis from the development of the SAC interactive learning media will be outlined in several stages, namely feasibility, practicality, and effectiveness, as detailed in the following table:

Table 1. Product Feasibility Results

No	Expert	Percentage	Classification
1	Material	90%	Very Good
2	Media	92%	Very Good
3	Language	91%	Very Good
	Average	91%	Very Good

From the table showing the product feasibility results, it is known that the material experts gave a rating of 90% classified as 'Very Good'. Then, the media experts gave a rating of 92% classified as 'Very Good', and finally, the language experts gave a rating of 91% classified as 'Very Good'. Thus, the average expert feasibility rating is 91% classified as 'Very Good,' and it is concluded that the interactive learning media SAC is highly feasible for implementation during learning. Furthermore, the teachers' evaluations as practitioner experts to assess the practicality of the product will be presented as follows:

Table 2. Product Practicality Results

No	Expert	Assesment	Classification
1	Teacher	93	Very Practica

From the table showing the practicality of the product, it is known that teachers as practitioners gave a rating of 93 classified as 'Very Practical'. Thus, the SAC interactive learning media is very practical to apply during learning. Then, to determine the effectiveness of the SAC interactive learning media developed, a multiple-choice test was conducted. The multiple-choice test questions were applied to collect data on student learning outcomes before and after using the SAC interactive learning media. The purpose of collecting student score data was to determine the level of effectiveness of the SAC interactive learning media in improving learning outcomes, which was tested using a normalised gain test. The results are as follows:

$$g = \frac{\text{posstest} - \text{pretest}}{\text{max} - \text{pretest}}$$

$$g = \frac{90 - 65}{100 - 65}$$

$$g = \frac{25}{35}$$

$$g = 0.714$$

Based on the calculation using the gain test, the value obtained was 0.714, classified as 'Very High.' Therefore, it was concluded that the SAC interactive learning media has a 'Very High' level of effectiveness in improving the learning outcomes of students at SDN 057224 Paluh Gusta in the subject of building identity in diversity.

These results are in line with study, Development of Learning Media Based on Smart Apps Creator in Islamic Religion, which produced products with a pretest average of 58 and a posttest average of 86, with an average increase of 0.67, categorised as moderate (Khasanah & Rusman, 2021). Furthermore research on learning media assisted by smart apps creators was able to improve students' problem-solving abilities, with a pretest average of 60 and a posttest average of 86, with an average gain of 0.65, categorised as moderate, and was able to improve students' problem-solving abilities effectively (Wulandari et al., 2024). Thus, it can be concluded that the Smart Apps Creator learning media can effectively improve students' learning outcomes. The effectiveness of this interactive learning media aligns with Vygotsky's constructivist theory, which includes the Zone of Proximal Development with four stages of development (Fallensky, 2021). The interactive learning media developed falls into the fourth stage, where a student's spontaneous actions are repeatedly practised until they are ready to think critically. This means that the interactive learning media developed makes students enjoy learning because, with interactive learning media, students can repeat it anytime and anywhere and become more responsive to technological changes (Clarisa et al., 2023). The developed learning media can effectively improve students' learning outcomes in a good and optimal manner. Additionally, research explains that the use of interactive learning media created with Smart Apps Creator makes students feel happy and enthusiastic while learning, enabling them to easily grasp the knowledge received, thereby motivating them to learn independently, creatively, and efficiently (Syadida, 2022). Therefore, based on the results and findings presented, it is concluded that the development of interactive learning media based on Smart Apps Creator has proven effective in improving student learning outcomes, consistent with previous research and Vygotsky's constructivist theory. This media not only enhances learning outcomes but also makes students feel happy and enthusiastic about learning, thereby motivating them to learn independently, creatively, and efficiently. Therefore, interactive learning media based on Smart Apps Creator can be an effective alternative in improving the quality of learning.

The development of interactive learning media based on Smart Apps Creator (SAC) to improve learning outcomes in the subject of building identity in diversity for fourth-grade elementary school students is an effort to improve the quality of learning in elementary schools, because interactive learning media SAC can be one solution to improve student learning outcomes, as this media can present learning materials in a more interesting and interactive form (Putera et al., 2024). Additionally, this approach can also boost learning motivation, as interactive learning media using SAC can enhance students' motivation to learn, since this media can present learning materials in a more engaging and interactive format (Hasrullah et al., 2024). Furthermore, it can improve conceptual understanding, as SAC interactive learning media can enhance students' conceptual understanding by presenting learning materials in a clearer and more structured format. It can also increase student engagement, as SAC interactive learning media can encourage students to interact directly with the learning materials (Husna et al., 2023). Therefore, there are many benefits provided by this product, such as increasing awareness of diversity. SAC interactive learning media can increase students' awareness of diversity because it can present learning materials about diversity in a more interesting and interactive form (Tyas et al., 2022). Improving the ability to

build identity, SAC interactive learning media can improve students' ability to build identity, because this media can present learning materials about identity in a clearer and more structured form and also increase tolerance and empathy, SAC interactive learning media can increase students' tolerance and empathy, because this media can present learning materials about diversity and identity in a more interesting and interactive form (Maulana, 2025). Therefore, the development of interactive learning media based on Smart Apps Creator (SAC) to improve learning outcomes in the subject of identity building in diversity for fourth-grade elementary school students is a very important and relevant effort to improve the quality of learning in elementary schools.

The learning process as a learning activity managed by teachers to maximise learning outcomes through student-involving learning, such as learning with interactive learning media based on Smart Apps Creator, will change the learning atmosphere so that students can apply their learning to real life. The interactive learning media developed based on Smart Apps Creator takes the form of an Android application and interactive learning links on the subject of building identity in diversity. Interactive learning media can motivate and increase students' interest in learning and improve learning outcomes.

The use of SAC learning media in the classroom can provide many benefits in improving student learning outcomes. However, as with the implementation of other technologies, there are several challenges that need to be overcome to ensure effective implementation. The following are some of the challenges that may be encountered in implementing SAC learning media in the classroom, such as limited infrastructure in schools, which can be one of the main challenges in implementing SAC learning media. Not all schools have access to adequate digital devices, such as computers, tablets, or smartphones, which can be used to access SAC learning media. Teachers need to have adequate skills to use SAC learning media effectively. However, not all teachers have the same skills in using technology, so training and mentoring are needed to ensure that teachers can use SAC learning media properly. Students need to have high motivation and engagement in using SAC learning media. However, some students may not be sufficiently motivated to use SAC learning media, so strategies are needed to increase student engagement. SAC learning media requires stable internet access to be accessible to students. However, not all schools have stable internet access, so careful planning is needed to overcome this problem. The implementation of SAC learning media can be costly, such as the cost of media development, internet access, and digital device maintenance. Therefore, careful budget planning is necessary to ensure that the implementation of SAC learning media can be carried out effectively. Thus, by understanding the challenges that may be encountered in implementing SAC learning media in the classroom, teachers and schools can make careful plans and develop strategies to overcome these challenges. In this way, the implementation of SAC learning media can be carried out effectively and provide significant benefits for students.

Conclusion

As for suggestions for further research, it is necessary to conduct further research involving a larger and more diverse sample, including other schools with different student characteristics, to test the validity and reliability of this SAC interactive learning media more comprehensively. The development of SAC interactive learning media can be improved by adding adaptive features that allow the media to adjust to the ability level and learning style of each student. Given the effectiveness of this media in improving student learning outcomes, it is recommended that SAC interactive learning media be implemented in other schools,

especially those with student characteristics similar to SDN 057224 Paluh Gusta. Before wider implementation, it is important to provide adequate training to teachers on how to use SAC interactive learning media effectively and how to integrate it into existing lesson plans. After implementation, continuous evaluation is needed to monitor the long-term effectiveness of this media and identify areas that require improvement or adjustment. Thus, the development of SAC interactive learning media can provide broader benefits for students and schools and improve the quality of learning in Indonesia.

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