

DEVELOPMENT OF INTERACTIVE LEARNING MEDIA BASED ON SMART APPS CREATOR (SAC) 3

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Abstract: Rapidly developing technology requires educators to update learning methods and media so that children enjoy them. The purpose of this study is to develop digital-based learning media products using Smart Apps Creator 3. This study is a Research and Development (R&D) study using the ADDIE model which has five steps in its research stages, namely analysis, design, development, implementation, and evaluation. Data collection techniques are in the form of questionnaires, tests, and documentation. The population in the study were all 5th-grade students of UPT SDN 060925 Medan, totaling 22 people. The results of the validation of material experts obtained a score of 92,14% with very valid criteria. The media experts' validation resulted in a score of 93,45%, which was based on very valid criteria. The results of the practicality test obtained a result of 86.77%. This, the results of the study state that interactive learning media based on Smart Apps Creator 3 for 5th-grade elementary school is very valid and very practical to use.

Keywords: *Interactive Learning Media and SAC 3*

Introduction

Quality education is one of the main pillars of developing superior human resources. In the context of education in Indonesia, the use of information and communication technology (ICT) in the learning process is increasingly important, especially in the current digital era. According to statistics from the Central Statistics Agency (BPS) in 2022, around 90% of schools in urban areas have integrated technology into their learning, but in rural areas, this figure is still much lower (BPS, 2022). This shows a gap that needs to be addressed, especially regarding access to and utilization of technology.

Ever-evolving technology creates innovations in learning media. New teaching methods and media need to be developed to complement the traditional teaching paradigm and to add to students' learning needs (Bustanul, et al., 2019; Anindya, A, 2023). New learning media are often referred to as interactive learning media. Interactive learning media are learning tools/intermediaries that involve direct interaction between students and media related to computers or applications that contain media elements such as text, graphics, photos, animations, videos and sound (KBBI). One of the advantages of interactive learning media is its ability to present information in visual and multimedia forms so that students get clear illustrations of various phenomena and processes that are difficult to explain (Utomo, 2023). Interactive learning media helps students to understand concepts better because there is student interaction with the media, not just listening and seeing (Hayya'.L.A., 2023; Khotimah & Santoso, 2016). A study conducted by Setiawan (2021) showed that students who learned using interactive media showed a significant increase in understanding concepts compared to those who used traditional methods. There are many ways to use interactive learning media, one of which is by using Smart APPS Creator (SAC) 3.

SAC 3 is a platform that allows educators to create interactive learning applications without the need for in-depth programming skills (Nofitasari, D, et al., 2021). Studies show that students who learn using interactive media have a higher level of engagement of up to 30% compared to those who learn using traditional methods (Rahmawati and Hidayati, 2021; Hidayah, 2022). The use of interactive media in learning has been shown to increase student motivation and learning outcomes. By using SAC 3, teachers can create interesting and interactive applications, so that students can learn in a more enjoyable and non-monotonous way. The use of technology in education not only improves students' digital skills but also prepares them to face challenges in an increasingly digital world (Surya, 2023).

Literature Review

One of the main advantages of SAC 3 is its ability to integrate various multimedia elements, such as images, videos, and animations, into learning applications. SAC 3 also allows teachers to provide direct feedback to students. With the interactive features available, students can answer quizzes or questions provided in the application, and teachers can immediately find out the results. This allows teachers to adjust their teaching based on student understanding. In addition, mobile application-based learning media such as those developed with SAC 3 also provide flexibility for students to learn anytime and anywhere. According to a report from the Ministry of Education and Culture (Kemendikbud) in 2023, 80% of students prefer learning methods that can be accessed via mobile devices. Thus, the development of this interactive learning media is expected to meet student needs and increase the effectiveness of the learning process.

At UPT SD Negeri 060925 Medan, the teaching of magnetic properties material is still carried out using conventional methods that tend to be less interesting for students. Based on an initial survey conducted, 70% of students admitted to feeling bored and less interested when learning this material. This has the potential to hinder the understanding of basic physics concepts that are important for the development of their science in the future. Therefore, innovation is needed in learning methods that can attract students' interest and improve their understanding of the material. In the context of learning magnetic properties, SAC 3 can be used to create simulations that allow students to experiment with various types of magnets and ferromagnetic objects. By conducting virtual experiments, students can see how magnets interact with other objects without having to conduct physical experiments that may be risky. This is very relevant in physics learning, where direct experiments are often difficult to do in the classroom. Research by Lestari and Rahman (2023) shows that students who use virtual simulations can understand concepts better and faster. This study aims to develop and evaluate interactive learning media based on Smart APPS Creator 3 for magnetic properties material at UPT SD Negeri 060925 Medan. Through this development, it is hoped that a more interesting and effective learning experience can be created for students, as well as increase their understanding of the essential concepts of magnetism in physics.

Method

This study uses a Research and Development/R&D development approach that aims to create interactive learning media based on Smart APPS Creator (SAC) 3. The development model used is the ADDIE model developed by Dick and Carry. The ADDIE model is used as a guideline in the development of devices and infrastructure with 5 stages, namely (1)

analysis, (2) design, (3) development, (4) implementation, and (5) evaluation. This approach was chosen because it is by the objectives of the study which aims to develop and test the effectiveness of learning media in improving students' understanding of the material on the properties of magnets. The subjects of this study were 22 sixth-grade students at UPT SD Negeri 060925 Medan. Data collection techniques were carried out by observation, tests, interviews and questionnaires. Before conducting the study, the researcher conducted a pre-test to determine the initial conditions of the students. The results of the pre-test showed that the average student score was below the Minimum Completion Criteria (KKM) set, which was 75. This became the basis for the researcher to continue the research and development of interactive learning media. During the research, the researcher also involved teachers as interview subjects to gain perspectives on the teaching and learning process in the classroom. Data analysis was carried out qualitatively and quantitatively and a validity test will be carried out on the products to be developed.

Results and Discussion

From the data collection activity by distributing 4 questionnaires, where the questionnaires were given to material experts, media experts, teachers, and students. The validation results from the experts are as follows:

Table 1. Material Expert Validation Results

No	Aspek Penilaian	Persentase	Kategori
1	Konten/ Materi	91,67%	Sangat Layak
2	Bahasa	93,33%	Sangat Layak
3	Evaluasi	91,43 %	Sangat Layak
	Rata – rata	92, 14 %	Sangat Layak

The expert validation assessment of the material is divided into 3 aspects with 22 indicators with a result of 92.14%. The results of this percentage can be said that the interactive learning media product based on SAC 3 is in the very feasible category and can be applied to students directly.

Table 2. Media Expert Validation Results

No	Aspek Penilaian	Persentase	Kategori
1	Panduan dan Informasi	100,00 %	Sangat Layak
2	Kinerja Program	92,50 %	Sangat Layak
3	Sistematika	93,33 %	Sangat Layak
4	Estetika	90,00 %	Sangat Layak
5	Kualitas Audio, Video dan Animasi	91,43 %	Sangat Layak
	Rata – rata	93,45 %	Sangat Layak

The media expert validation assessment is divided into 5 aspects with 25 indicators with a result of 93.45%. This percentage result can be said that the interactive learning media product based on SAC 3 is in the very feasible category and can be applied to students directly.

Table 3. Practicality Test Results

No	Aspek yang Diamati	Skor
1	Media dapat mengatasi keterbatasan pengalaman siswa	4
2	Media dapat mengatasi batas ruang kelas	5
3	Media dapat memungkinkan terjadinya interaksi langsung	4
4	Media dapat menambahkan konsep dasar yang benar, nyata dan tepat	5
5	Media dapat mengontrol kecepatan belajar siswa	4
6	Media dapat memberikan pengalaman yang menyeluruh dari hal-hal yang konkret sampai yang abstrak	4
Jumlah		26
Skor Maksimal		30
Persentase		86.77%
Kategori		Sangat Baik

The results of the practicality test from the 6 aspects assessed, the total score obtained was 26 out of a maximum score of 30. If expressed as a percentage, the results were 86.77% with a very good category and had met the practical criteria..

Table 4. Student Response Results

No	Aspek yang Diamati	Jumlah Skor
1	Media interaktif mudah digunakan	98
2	Media interaktif mudah dipahami	94
3	Penyajian materi sederhana	92
4	Media interaktif sesuai dengan kehidupan sehari-hari	90
5	Tampilan media interaktif menarik	94
6	Media interaktif berjalan dengan baik	96
Jumlah		564
Skor Maksimal		660
Persentase		85,45%
Kategori		Sangat Baik

The table above shows that from 22 total respondents who took part in the trial with 6 indicators measured with a maximum score of 5 per indicator. The results obtained overall were 564 out of a maximum score of 660. If expressed as a percentage, the result is 85.45% with a very good category.

The results of the development of interactive learning media based on SAC 3 are stated to be very valid in terms of content and meet user needs. Based on the analysis of the application of interactive learning media, students are more enthusiastic and excited and students can also learn independently wherever and whenever they want. Students will easily repeat learning from the available media. Interactive learning media makes it easier

for students to learn about the material on the properties of magnets and makes students enjoy learning science so that learning objectives can be achieved.

Conclusion:

The development of interactive learning media based on Smart APPS Creator (SAC) 3 at UPT SD Negeri 060925 Medan showed positive results in learning the properties of magnets. By using interactive learning media, students not only gain theoretical knowledge but also practical skills through simulations and quizzes. The increase in students' grades and interest in learning is proof that educational technology can have a significant impact. The developed application not only succeeded in attracting students' interest, but also significantly improved their understanding of the material. The data showed an increase in students' average grades, as well as positive feedback regarding ease of use. The implementation of this learning media also strengthens the importance of the role of teachers as facilitators in the learning process. By actively involving students and providing appropriate guidance, learning becomes more interactive and enjoyable. In addition, the feedback received from students provides valuable insights for future application development, so that it can better meet students' needs. Thus, the development of interactive learning media based on SAC 3 can be used as a model for other schools in improving the quality of education through the use of technology. The hope for the future is that this innovation can continue to be developed and applied widely to support a more effective and enjoyable learning process throughout Indonesia.

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