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Original Research Paper

Smart Apps Creator-Based Learning Media Training on Reproductive System Material at Junior High School 3 Labuapi

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Abstract

This training activity aims to introduce more effective and interactive learning to students at SMPN 3 Labuapi, West Lombok, in understanding biology concepts, especially in the reproductive system. The activity is carried out through two stages, namely training and mentoring. Training at Public Junior High School 3 Labuapi introducing learning media based on the Smart Apps Creator application on reproductive system material with interactive content went well. It is hoped that a positive response to the application of this media can increase understanding and motivation in science education. This innovative approach is in line with the need for creative teaching methods in today's world of education.

Kata Kunci: media; learning; technology; android

Introduction

The demands of the 21st century are currently very high, especially in the use of technology (Hamdani et al., 2022). The increasingly rapid development of information technology throughout the world presents new challenges for all areas of life (Juniarti, 2021; Rohman et al., 2024). Especially in the current situation, technological developments are always the most important and most important highlight in life (District et al., 2024; Kurniasing et al., 2025). One example of technological growth is education. The world of education is always closely related to technology . One effort to make education more advanced is for teaching staff to continue to upgrade themselves. Therefore, teaching staff must continue to follow developments in the world of education from year to year. The development of technology in the world of education is the development of learning media which is supported by the use of technology. This is the main support in the application of technology in schools. The skills of an educator in using learning media that have a positive impact, especially

technology (Nuri et al., 2023; Maasawet et al., 2023).

The use of learning media is very important for an educator to continue to follow developments in educational technology (Khotimah et al, 2023). With advances in information and communication technology, learning can now be done flexibly through various media, such as Android-based learning (Kuswanto, 2019; Rukoyah & Bektiningsih, 2024). Learning media is an important tool in the learning process, especially in science subjects at junior high school (SMP) level. This is due to the large number of monotonous learning media which is a major problem in schools.

The problem that usually occurs is that many students tend to dislike subjects, especially science subjects, because they are considered difficult, boring and monotonous (Nurfitriyanti, 2016). This is caused by the method of delivering learning materials and media that is less interesting and interactive. Students need to understand basic science concepts, not just memorize formulas and theories (Özarslan & Cetin, 2018). Even though teachers and students already have technology such as Android-based smartphones, its use in learning is still limited. Most of them only use smartphones for social media and entertainment.

Therefore, innovation is needed in learning media to make the science learning process, especially in complex material, more enjoyable and increase students' learning motivation (Hamka, 2022; Fahlevi & Aminatun, 2023). The aim is to improve educators' energy skills and improve the quality of learning together with interactive learning media based on SMAsrt Apps Creator (SAC). One alternative to improve teachers' abilities in using ICT (information and communication technology) in the teaching and learning process is community service activities (Abdjul et al., 2023; Nugroho et al., 2024). In particular, by using Smart Apps Creator (SAC), educators can create Android-based learning media (Jahring, 2022; Sari et al., 2024).

The research team chose quite complex material in science subjects. Material about the Human Reproductive System involving instruments and media (Elmalı, & Kıyıcı, 2022). Because the topics in this material are quite complex, such as structure, function and processes in the human reproductive system, including the formation of sex cells, ovulation, menstruation, fertilization, pregnancy, breastfeeding and disorders/diseases that occur in the system (Listianti, 2017). The research team also created interactive learning media based on Smart Apps Creator (SAC) with material on the human reproductive system (Qomariyah & Pertiwi, 2023). The features that the research team offers are also more interesting. So the research team hopes that the world of education will become more technologically advanced. By holding training at SMPN 3 Labuapi, it is hoped that students will be able to obtain more effective and interactive learning.

Material and Method

Material

The Smart Apps Creator (SAC) application a platform of software made for designing interactive digital learning materials, served as the primary resource used in this activity. In addition to SAC, the activity utilized curriculum-specific teaching information that was integrated into the program. The implementation additionally requires supporting devices such laptops or desktop computers, cellphones or tablets, and a steady internet connection

Method

The appropriate method in this service journal is training and mentoring for SMPN 3 Labuapi students in implementing Smart Apps Creator (SAC) based learning media. This activity was carried out on Thursday, December 13 2023 from the Master

of Science Education study program from the Mataram University postgraduate study. During the activity process, students from the science education master's program provide counseling to students with role-playing sessions so that students can experience the benefits directly from the learning media used.

Planning activities include field activities, interacting with students and coordinating with the school. Implementation activities include providing material regarding the use of learning media, how to install and use learning media, introduction to material content in learning media. The research team gave instructions to students so that they could slowly understand the learning media that the researchers created. So that students can understand well the learning materials and media used.

Result anda Discussion

Training activites in SMPN 3 Labuapi

Training activities on the use of smart apps and creator-based learning media on reproductive system material were held on Thursday, December 14 2023 at SMPN 3 Labuapi. This event was attended by 23 class 7 A students and accompanied by the science subject teacher and the deputy principal.

In the media use training activity, the facilitators demonstrated how to operate the Smart Apps Creator (SAC)-based learning media using a projector screen and allowed a student to try it out in front of the class. The SAC application includes structured digital materials, animations, sound effects, quizzes, and interactive questions, designed to make abstract science concepts-such as the reproductive system-easier to grasp and more engaging (Aeni et al., 2024).

Students were highly enthusiastic during the training. They responded positively to the colorful interface and responsive interaction provided by the SAC media. Many students noted that such applications made learning feel more like playing a game than studying (Khotimah et al., 2023). This was especially beneficial for the reproductive system topic, which students previously found difficult and unengaging when presented only through textbooks.

Smart Apps Creator (SAC)-based learning media offer significant benefits in the context of 21st-century education. The technology allows for personalized, self-paced learning and caters to multiple learning styles through multimedia content (Putra et al., 2022). It also supports the development of digital literacy, a crucial competency for both students and educations in this era (Sugianto et al., 2023. The ability to access the app offline further ensures inclusivity for schools with limited internet infrastructure.

The integration of SAC not only facilitates improved understanding of complex scientific concepts but also encourages curiosity and motivation among learners. For educators, this media represents a meaningful step toward incorporating ICT (Informationand Communication Technology) into daily teaching practice (Abdjul & Uloli, 2023). According to student and teacher feedback, SAC can transform traditional classroom dynamics into a more active and student-centered environment.

Moreever , the training at SMPN 3 Labuapi serves a valuable model for schools seeking to modernize their teaching

methods. The success of this program demonstrates that digital tools, when appropriately designed and implemented, can significantly enhance educational outcomes. It also highlights the importance of continuous professional development for teaches to keep pace with educational technology (Aisah & Sugiyem, 2025).

From our perspective, the use of applications like SAC not only supports academic learning but also prepares students to thrive in a technologically advanced world. It fosters critical thingking, self-regulation, and lifelong learning habits-traits that are essential for success in the 21st century. Therefore, ongoing support and scale-up of such initiatives are highly recommended to further transform education in Indonesia and beyond (Kim & Cho, 2022).

The experience at SMPN 3 Labuapi shows that digital media training is not only about transferring knowledge but also about inspiring both students and teachers to explore innovative ways of learning. The SAC-based media sparked curiosity, leading students to actively ask questions and show initiative in installing and navigating the application on their smartphones. This indicates a shift from passive to active learning behavior (Rinaldi et al., 2023)

In addition to content engagement, the media also improved collaboration between students and teachers. The user-friendly nature of SAC allowed teachers to integrated the tools into existing lesson plans with minimal effort, while also facilitating group discussions and peer learning (Roemintoyo & Budiarto, 2021). Such environments are essential for building communication and teamwork skilss among students.

Another important aspect of SAC media is its adaptability. Educators can customize content to match different curricular needs and student proficiency levels (Benarcki et al., 2023). This flecibility enhances differentiated instruction, allowing students to progress at their own pace and revisit challenging concepts as needed. The self-paced nature of SAC media also builds learner independence and responsibility.

Beyond classroom instruction, SAC media contributes to broader educational goals such as improving scientific literacy and technology adoption (Elmalı & Kıyıcı, 2022). As students become familiar with digital platforms in education, they develop the skills to navigate and evaluate information critically. This supports national education strategies aimed at preparing digitally literate and scientifically aware citizens (Bygstad et a., 2022).

Overall, the SAC initiative has proven to be valuable intervention in enriching science education through technology (Juniarty & Ramadan, 2021). Its continued use and development can provide long-term benefits, especially when aligned with teachers training programs and educational policy support. As schools strive to keep up with digital transformation, tools like SAC will be indispensable in birdging the gap between traditional teaching and future-ready learning.

Design Prototype SAC

The learning media prototype design created with Smart Apps Creator (SAC), as shown in Figure 1, is covered in the part that follows. The structure and elements incorporated into the digital learning material are represented visually by this prototype.

Figure 1. The initial appearance of Smart Apps Creator-based learning media on reproductive system material

We also explain that this learning media is in the form of an application so that it can be downloaded and accessed offline on students' smartphones. Figure 2. Shows the main menus interface, where students can access several features such as learning materials, practice exercise, and quizzes. Each menu is representated by distinct icons and labels, making it easier for students to identify and select the content they need. This user-friendly design reduces cognitive load and enhances the efficiency of navigating through the application. The various menus in this application also make it easier for students and teachers to use it in learning, starting from material, and practice questions, to quizzes.

Figure 2. Initial Menu for Learning Media Based on Smart Apps Creator on Reproductive System Material

In this training, students were very enthusiastic to try and listen to the explanations we gave because our learning media is interactive so students don't get bored. Figure 3. Captures a moment of student engangement during the training, where learners explored the use of SAC under the guidance of facilitators. This image emphasizes the importance of hands-on experience in adopting new learning tools. This learning media can also attract the attention of students, especially class 7A students, because of its attractive appearance, and lots of animations and sounds used. Student were encouraged to explore the app, ask questions, and interact with both the content and their peers, fostering an environment of active learning.

Figure 3. Discussion with students regarding the use of Smart Apps and Creator-based learning media in reproductive system material

According to one student, this learning media is very good for making it easier to understand science concepts which are usually boring (Sugianto et al., 2023). Especially in reproductive system material, so far most teachers only use textbooks as a learning resource using that same media.

In this training, students also actively asked questions regarding how to use applications or learning media based on smart app creators in this reproductive system material. In Figure 4, a students is shown trying the application independently, demonstrating the apps, potential for promoting autonomous learning. The SAC-based media was designed to be accessible offline, enabling students to learn anytime

Figure 4. One of the students tries to use learning media based on Smart Apps Creator on reproductive system material

At this time, progress requires that educators are willing to use various creative ways to increase students' motivation and desire to learn. One of them is by using media that keeps up with the times and is familiar to students. So that the existence of learning media based on smart app creators on reproductive system material has received a very positive response from students and teachers. It can be used and implemented in class learning because it is based on an offline application so it can be accessed on each smartphone for free, anytime and anywhere (Nuri et al., 2023).

Overall, the prototype design of the SAC application highlights a commitment to creating an inclusive, engaging, and adaptive learning environtment. The visual, auditory, and kinesthetic features incorporated in the app aim to meet the diverse learning preferences of students. Through intuitive interaction and multimedia support, the application ensures that students can engange with complex topics such as the reproductive system in a more meaningful and enjoyable manner.

Conclusion

Training at Public Junior High School 3 Labuapi introducing learning media based on the Smart Apps Creator application on reproductive system material with interactive content went well. It is hoped that a positive response to the application of this media can increase understanding and motivation in science education. This innovative approach is in line with the need for creative teaching methods in today's world of education.

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