

Utilization of Learning Animation Technology in Assisting the Creation of Interactive Teaching Materials for Teachers at SMAS Kristen Soleman

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Abstract

The teacher's job is to increase student interest in learning to improve student achievement in the learning process. One of the problems faced by teachers at SMAS Kristen Soleman is the lack of knowledge and skills in the use of animation learning technology, so the teaching materials produced are less attractive and become one of the factors in decreasing student interest in the learning process. This community service aims to improve knowledge and skills through training and mentoring in making interactive teaching materials using animated learning technologies such as Canva, Kahoot, and Powtoon for teachers at SMAS Kristen Soleman. The implementation method is carried out starting from the preparation stage (field observation, literature study, and partner identification), the implementation stage (training and mentoring), to the evaluation stage using pre-test and post-test before and after training and mentoring is carried out. Based on the evaluation results of training and mentoring teachers in making interactive teaching materials using animated learning technology, it show an increase in knowledge from 41.7% to 100%, where teachers already knew interactive teaching materials using animated learning technology. Meanwhile, teachers' skills increased from 12.5% to 91.7%.

Keywords: Interactive Teaching Materials, Teachers, SMAS Kristen Soleman, Animation Learning Technology, Community Service.

Received: 15 November 2023

Revised: 27 December 2023

Accepted: 2 January 2024

Introduction

Teachers' role is crucial in the era of technology and its impact on education (Mahini et al., 2012; Wohlfart & Wagner, 2023). As mandated in the preamble to the 1945 Constitution, the state must strive to enhance the nation's intellectual capabilities. Therefore, teachers are responsible for shaping the quality and future of education in Indonesia. Their tasks include fostering students' interest in learning and enhancing student achievement in the learning process. Research by (Amrullah et al., 2022) suggests that students' interest in learning greatly influences their academic success. SMAS Kristen Soleman, which is a research partner located on Perintis Kemerdekaan Street IV KM 10, Tamalanrea Jaya, Tamalanrea, Makassar City. Based on the results of interviews with partners in the month before the service took place, partners complained that students' interest in learning was decreasing. Several factors influence this problem, such as the influence of online learning during the COVID-19 pandemic, less attractive learning methods, and teachers' lack of knowledge regarding the use of technology to create interactive teaching materials. Teachers tend to use conventional teaching materials in the form of books and texts.

In research (Alamsyah et al, 2023), it is stated that educational technology plays a very big role in increasing students' interest in learning so that the learning process becomes more effective and active. This is in line with the teacher skills improvement program carried out by (Fitriyah et al., 2021) in Learning Media Creation Training using digital platforms such as Canva, PHET, Kahoot, and Powtoon. In research (Santiari et al., 2023), it is also stated that Canva and Powtoon are very easy for teachers to learn and teachers can produce interesting teaching materials through media in the form of animated videos, audio, and photos. Furthermore, research (Irwan, et al, 2019) using Kahoot in the learning process

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also proves that Kahoot can increase student learning participation and foster student interest in learning through the attractive appearance of the application (Curto Prieto et al., 2019).

Based on previous research and community service, the research team conducted the PKM-PM program in collaboration with teachers at SMAS Kristen Soleman. The aim was to provide direct training and mentoring to teachers in creating interactive learning materials using animation technology. The researchers focused on enhancing teachers' knowledge and skills in producing interactive materials and encouraged their active participation as students in PKM-PM activities, thereby implementing the Tri Dharma of Higher Education. The use of interactive teaching materials is expected to benefit SMAS Kristen Soleman by improving the quality of learning, fostering interest in learning, and enhancing student achievement.

Method

The method for implementing community service carried out by researchers consists of 3 stages. The first step is the preparation stage, in which the researchers gather relevant information, identify community needs, and develop a project plan. This stage involves conducting research, consulting with community members and stakeholders, and setting objectives and goals. The next step is the implementation stage. Once the project plan is finalized, the researchers actively engage with the community to carry out the planned activities. This involves collaborating with community leaders, organizing workshops or training sessions, providing resources or services, and addressing specific needs identified during the preparation stage. The implementation stage focuses on executing the project plan effectively and efficiently to achieve the desired outcomes.

The last step is the evaluation stage. This stage is crucial for assessing the impact and effectiveness of the community service project. The researchers collect data, analyze results, and evaluate the success of the project in meeting its objectives. This involves reviewing the outcomes, identifying strengths and areas for improvement, and making recommendations for future projects. The evaluation stage provides valuable insights for researchers, stakeholders, and the community to understand the benefits and limitations of the community service project. Figure 1 shows a flow diagram of the method of implementing community service carried out by researchers. The diagram depicts a cyclical process, indicating that these three stages are iterative and ongoing. It highlights the importance of a systematic approach in community service, ensuring thorough preparation, effective implementation, and continuous evaluation to promote sustainable and impactful outcomes.

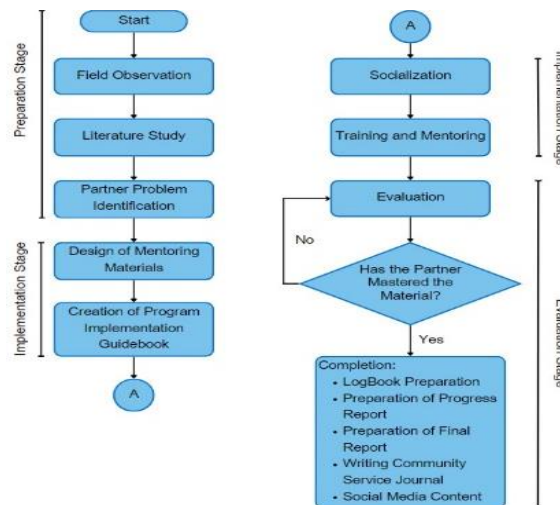


Figure 1. Flowchart of implementation methods

1. Preparation (April – August 2023)

The preparation stage began by coordinating with the supervisor to create a discussion agenda with the partner, SMAS Kristen Soleman. The researcher then visited the partner school located on Perintis Kemerdekaan Street

IV KM 10, Tamalanrea Jaya, Tamalanrea, Makassar City, and engaged in a dialogue with the school principals to address partner concerns and discuss the implementation of the PKM-PM program. Through journal research, the researchers identified solutions to the issues faced by teachers at SMAS Kristen Soleman. Direct observations indicated a need for the application of science and technology in creating interactive teaching materials. As a result, the researchers designed materials that facilitated the creation of interactive teaching materials using tools such as Canva, Powtoon, and Kahoot. Additionally, a guidebook was compiled to assist teachers in utilizing these applications, covering topics such as account registration, platform usage, tips and tricks, and downloading interactive teaching material files.

2. Implementation (August – September 2023)

After completing a structured preparation process, the researcher proceeded to familiarize the teachers at SMAS Kristen Soleman with the implementation of the PKM-PM program. The goal was to ensure that the partners understood the purpose and significance of the research team's activities. The next crucial step involved conducting training and mentoring sessions, which formed the core of the program. These sessions focused on discussing the application of animation technology in creating interactive teaching materials. The research team explained the concepts and techniques involved, while also providing direct assistance to teachers during the practical application of animation technology in creating interactive teaching materials.

3. Evaluation (September – November 2023)

Following the implementation stage, the evaluation process is conducted to assess the teachers' comprehension of using animation technology for creating interactive teaching materials. The researchers also offer additional support to teachers who require further clarification on the taught material. Subsequently, the research team prepares a logbook, progress report, and final report, along with any additional outputs as evidence of their success in the PKM-PM program. These outputs serve as tangible manifestations of the research team's achievements in implementing PKM-PM.

Results and Discussion

The training and assistance in creating interactive teaching materials using animated learning technology, namely Canva, Kahoot, and Powtoon, were conducted for the teachers at SMAS Kristen Soleman from August to September. These sessions were conducted through direct training and assistance methods, taking place within the school premises. The researchers actively engaged with the teachers, providing step-by-step guidance on utilizing the specific platforms to create interactive teaching materials. The training sessions included demonstrations, practical exercises, and personalized support to ensure that the teachers acquired the necessary skills and knowledge to utilize these technologies effectively. By conducting the training and assistance activities on-site at SMAS Kristen Soleman, the researchers were able to facilitate a direct and interactive learning experience for the teachers. This approach allowed for immediate feedback, addressing any questions or concerns that arose during the training process. The in-person training and assistance sessions fostered a collaborative environment, encouraging active participation and engagement from the teachers. Through this hands-on approach, the teachers were equipped with the necessary skills and confidence to create interactive teaching materials using Canva, Kahoot, and Powtoon.



Figure 2. Partner training and mentoring process

In Figure 2, part (a) illustrates the training and direct mentoring process involving Canva materials. Picture 2, part (b) showcases the training and mentoring related to Kahoot materials, while Picture 3, part (c) depicts the training and

mentoring centered around Powtoon materials. The teachers' active participation, enthusiasm, and eagerness to learn during this program have significantly enhanced their knowledge and skills. As a result, the teachers have become proficient in utilizing interactive teaching materials from the Canva, Kahoot, and Powtoon platforms. Additionally, they have successfully designed their own interactive teaching materials by applying animation learning technology.

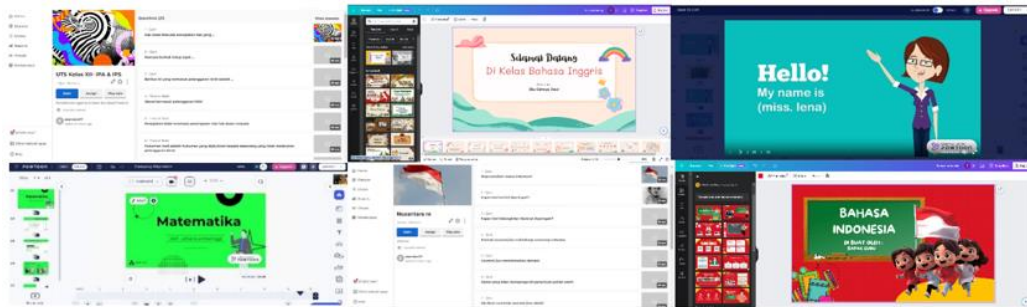


Figure 3. Teaching materials produced by teachers

Figure 3 showcases the interactive teaching materials created by the teachers of SMAS Kristen Soleman through the training and mentoring provided by the researchers. These materials include interactive presentations, interactive learning videos, and interactive learning material evaluations. The teachers have successfully developed these materials and have been implementing them directly in their classrooms during the learning process. The interactive teaching materials have proven to be valuable resources for enhancing student engagement and promoting active learning. Through these materials, teachers can create dynamic and interactive learning experiences, catering to the diverse needs and learning styles of their students. By incorporating various multimedia elements, such as videos, interactive quizzes, and interactive slides, the teachers at SMAS Kristen Soleman have been able to create an interactive and stimulating learning environment for their students. The use of these materials has not only increased student participation and interest in learning but also improved their overall learning outcomes and achievements.

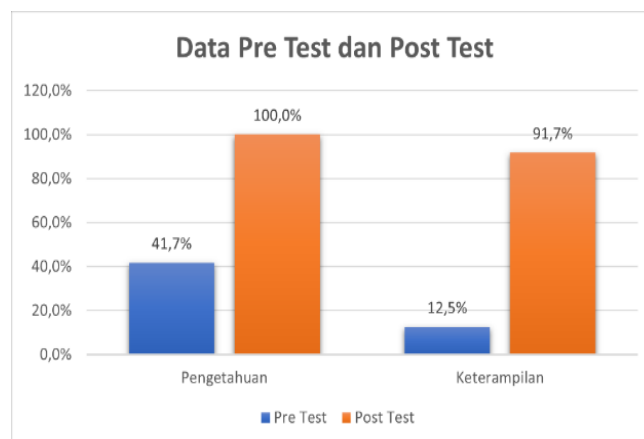


Figure 3. Pre-Test and Post-Test Data

Figure 4 presents the initial pre-test data that was collected before the commencement of training and mentoring sessions. This was done to assess the teachers' knowledge and skills regarding the utilization of interactive teaching materials using animated learning technology. The pre-test results indicated that the teachers had a knowledge percentage of 41.7% and a skills percentage of 12.5%. Following the training and mentoring sessions, a post-test was conducted to evaluate the teachers' progress. The post-test results revealed a significant improvement, with the teachers' knowledge increasing to 100% and their skills increasing to 91.7%. The data from Figure 4 demonstrates that the partner, SMAS Kristen Soleman teachers, have acquired the necessary knowledge and skills to create interactive teaching materials using the platforms introduced during the training and mentoring program.

To ensure the sustainability of this program, the researchers established a community consisting of educational volunteers who are capable of providing training and mentoring to teachers from other schools. Additionally, the researchers compiled video tutorials and published books on a national and international scale, focusing on the application of animated learning technology in creating interactive teaching materials. These resources aim to disseminate the knowledge and expertise acquired by the researchers, enabling their work to benefit a larger audience. By sharing these resources, the researchers aspire to contribute to the advancement of education and the enhancement of teaching practices beyond SMAS Kristen Soleman

Conclusions

Based on the community service conducted by the researchers at SMAS Kristen Soleman, it is evident that there was a substantial improvement in the teachers' competency levels. The training and assistance provided resulted in a remarkable increase in both knowledge (from 41.7% to 100%) and skills (from 12.5% to 91.7%) related to the development of interactive teaching materials. This significant growth in knowledge and skills is expected to fortify the role of teachers in fostering students' interest in learning.

By equipping teachers with the necessary knowledge and skills to create interactive teaching materials, there is a greater likelihood of enhancing student engagement and academic achievement. The improved competence of the teachers enables them to employ innovative and interactive approaches in the classroom, thereby capturing students' attention and stimulating their desire to learn. As a result, it is anticipated that students' overall achievement in the learning process will increase, leading to better educational outcomes.

In conclusion, the community service program conducted by the researchers at SMAS Kristen Soleman successfully contributed to enhancing the knowledge and skills of teachers in developing interactive teaching materials. This improvement in teacher competency holds the potential to positively impact students' interest in learning and subsequently enhance their academic achievements. Through continued efforts to strengthen the role of teachers, we can strive towards creating a more engaging and effective learning environment for the students.

Acknowledgments: This PKM-PM is supported by the Directorate General of Higher Education, Research and Technology (Ditjen Dikristek) through the Directorate of Learning and Student Affairs (Belmawa), Akba Technology University Makassar, State Polytechnic of Sriwijaya and SMAS Kristen Soleman Makassar.

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