Improving the pedagogic competence of Pandhega Jaya Christian High School teachers through making learning videos

Peningkatan kompetensi pedagogik guru SMA Kristen Pandhega Jaya melalui pembuatan video pembelajaran

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ABSTRACT

The development of technology today has had a very significant impact in the world of education, one of which is the creation of innovative learning media so that it can be a solution for teachers in creating a more interesting learning atmosphere. In line with this, teachers must be able to adapt, one of which is increasing their competence, especially pedagogic competence. The objectives of this activity are to improve teacher learning and creativity in preparing media; and solving problems faced by teachers in making learning videos; and introducing software/applications that are easy to use in making learning videos. This service activity was carried out at Pandhega Jaya Christian High School as a partner school. The method of service used is in the form of training. The stages of training activities include: preparation, implementation, monitoring and evaluation. The result of this activity is an increase in the ability of teachers to use technology-based media. This can be seen from the teachers being able to make learning videos using an android/ios-based application, namely Capcut. The whole series of activities went well and the participants looked so enthusiastic and followed the whole series of activities to completion.

1.   INTRODUCTION

Lifestyle changes that followed the current development have affected all fields. In this era of the industrial revolution 4.0, technology development is experiencing enormous progress. Laptop keyboards have replaced the use of typewriters, and news sent by mail or postal money order has also

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been replaced by short messages via messenger, email, or other social media. This technological leap happened quickly, and everything is now managed by technology. In response to this situation, the Indonesian government has compiled a roadmap with the concept of Making Indonesia 4.0, which provides direction and strategy for developing the Indonesian industry. One of the ten (10) priorities in the roadmap is improving human resources quality by redesigning the educational curriculum to adapt to the industrial era 4.0 (Rohita, 2020), so that learning innovation following technological developments needs to be obtained to achieve the planned goals and targets.

Teachers must adapt to the current education development by increasing their capacity and professionalism as a teacher who is up to date on technological developments (Murni et al., 2021). In this digital era, a teacher must be able to actualize pedagogic competence by being responsible for students designing and implementing learning outcomes (Tari & Hutapea, 2020). In addition, teachers are also required to prepare the learning well, one of which is by increasing the ability to prepare innovative and creative learning media that can utilize various sources. The learning media prepared are expected to motivate students to learn and stimulate students to write, speak, and imagine (Firmadani, 2020).Several studies have shown that using technology-based learning media can increase students' interest and learning outcomes (Affandi et al., 2020; Nursyam, 2019).

Educational video is a learning medium with audio-visual learning materials that can be packaged in various forms. Learning videos can make students watch events that cannot be seen directly because they cannot be brought directly into the classroom. In addition, by the learning video, students can learn the material presented by playing back the video according to the needs of the students (Fallo et al., 2021). There are some benefits of using learning videos in the learning process, namely: 1) it can increase students' attention and concentration; 2) able to arouse the emotions and attitudes of students; 3) it can help students understand and remember learning materials so that the learning objectives can be conveyed properly; and 4) the combination of visuals and audio can help students who are weak and slow to catch messages (Pantur et al., 2022; Yudianto, 2017). Video-based learning media can also create an effective learning process, especially in the distance learning process as during the current pandemic (Parlindungan et al., 2020). According to the importance of using learning media, especially learning videos in learning activities, teachers must be able to improve their knowledge and skills in preparing learning materials.

SMA Kristen Pandhega Jaya is a school located in Kupang Regency, which was only established in 2014. This school has a vision of preparing prospective leaders who are capable, with integrity, full of dedication, and love for the nation. To achieve this vision, the educators, the teachers in SMA Kristen Pandhega Jaya, play a significant role. This vision followed the Law of the Republic of Indonesia Number 14 of 2005 that professional teachers are responsible for the character and knowledge of students. Therefore, as the pioneer of the students' success formation, the teacher needs to be equipped to improve their competencies. Government Regulation Number 74 of 2008 states that competence is a set of knowledge, skills, and behaviors that teachers must possess, be internalized, master, and actualize in carrying out professional duties. The referred competencies include pedagogic, personality, social, and professional competence.

Based on the observations, it was found that the teachers did not optimally implement video-based learning media at SMA Kristen Pandhega Jaya. This can be seen from a survey conducted by the community service team of Universitas Katolik Widya Mandira. The result shows that 30% of the learning process has used learning videos as learning media. In addition, the discussion results with the principal and several teachers of SMA Kristen Pandhega Jaya obtained some information, there are: 1) so far, the learning media used by most of the teachers are only visual or audio learning media; 2) the learning

videos used by the teachers are based on self-learning; and 3) most of the teachers are not skilled yet in making learning videos. This is what causes teachers to be less confident in using learning videos. The partners consider it necessary to cooperate with the service team to carry out an activity in answering the existing problems. In answering the similar problems, several results of service activities have proven that training activity able to: 1) increase the knowledge and skills of a teacher in managing to learn; 2) assist the teachers in updating science and technology; 3) overcome the limitations of teachers in preparing learning media (Djong et al., 2021; Nursafitri & Purwanti, 2021; Syahroni et al., 2020).

Based on the explanation of the problems, the community service team of Universitas Katolik Widya Mandira designed a service activity in the form of training in making learning videos for teachers of SMA Kristen Pandhega Jaya. This activity's goals are: 1) improve the skills and creativity of teachers in preparing learning media; 2) solve problems teachers face in making learning videos; and 3) introduce software or applications that are easy to use in making learning videos.

2.   METHODS

The training activity for making learning videos was carried out at SMA Kristen Pandhega Jaya, Kupang Regency (Figure 1) on January 21, 2022. Twenty (20) teachers of SMA Kristen Pandhega Jaya were the training participants. The speaker in this training activity is a lecturer of the service team from the Chemistry Education Study Program at Universitas Katolik Widya Mandira. The materials presented are included: the role of technology in education in the present and future, learning media, learning videos, applications used in making learning videos, and tutorials on using the CapCut application in training. The stages in this service activity include preparation or planning, implementation, monitoring, and evaluation.
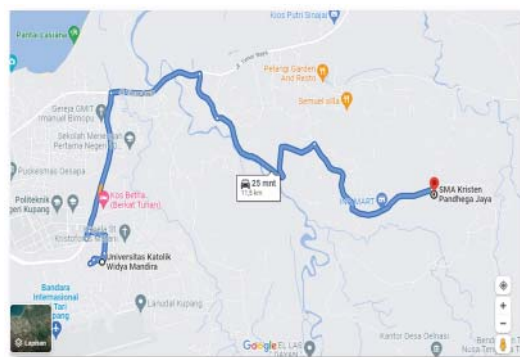
Figure 1. Location map of service activities

In the planning stage, the service team conducted observation and interview in April 2021 with the principal of SMA Kristen Pandhega Jaya, to identify the needs. Then, the team members carried out internal coordination to conceptually plan the implementation of activities. Before setting the training materials, firstly, the team conducted a survey in November 2021 via Google Form to find out the applications that teachers had used in making the learning videos. This action is obtained to make the material well-prepared, based on target, and useful for teachers.

At the implementation stage, the partner's role in service activities is to prepare the venue and participants for training activities. As the participants, the teachers of SMA Kristen Pandhega Jaya were given the material by the service team regarding using information technology in making learning

videos. In addition, participants were also assisted in making interesting learning videos using the CapCut application. At the end of the activity, each participant was allowed to present the video that had been made.

The next stage in this service activity is monitoring and evaluation. Monitoring is carried out through observation by the service team during the ongoing training activity. Meanwhile, the evaluation is carried out at the end of the activity with the companion team and the participants. The evaluation was carried out by distributing a questionnaire through the Google Form, discussions, and observations during the activity with the participants.

3.   RESULTS AND DISCUSSION

The training activity for making learning videos was carried out by the team of Universitas Katolik Widya Mandira together with the teachers of SMA Kristen Pandhega Jaya in Oelnasi Village, Kupang Regency. This activity involved teachers of SMA Kristen Pandhega Jaya as the participants. Overall, the results achieved in this activity consist of: preparation, implementation, and monitoring and evaluation.

Preparation

The preparation stage for this service activity began with observations and interviews with the principal of SMA Kristen Pandhega Jaya, in April 2021. Observations were carried out to obtain initial data on school conditions and information about facilities and infrastructure to support the training process. The data obtained from observations are: 1) SMA Kristen Pandhega Jaya is a private school that has dormitories for students and teachers; 2) there are twenty (20) teachers and eighty-seven (87) students in total; and 3) SMA Kristen Pandhega Jaya has supporting infrastructure for the training process such as LCD projectors, sound systems, and android phones owned by each of the teachers.

The teachers hold significant responsibility in carrying out the learning process as it is according to the school vision, preparing prospective leaders who are capable, with integrity, and full of dedication and love for the nation. During the interview, the principal said that teachers must be equipped with innovative and creative learning concepts to manage the learning process well. In addition, teachers must be active and have the skills to develop media design to create effective and fun teaching and learning activities for students and teachers. At the end of the interview with the principal, an agreement was reached between the service team of Universitas Katolik Widya Mandira and SMA Kristen Pandhega Jaya to make a training activity about making learning videos in order to improve the teachers' pedagogic abilities (Figure 2).

Figure 2. Interview and signing of cooperation agreement between the service team and SMA Kristen Pandhega Jaya

The survey conducted through Google Forms to determine the use of learning videos in the teaching and learning process showed that 30% of teachers had used learning videos in the learning process. The team then analyzed the training needs based on the survey results that had been conducted. The results were in the form of training materials and training schedules. The material chosen is training in making learning videos using the CapCut application. 90% of the teachers said they did not know how to make learning videos using the CapCut application. Another material prepared by the team is the introduction of several applications or software that can also be used to create or edit learning videos, such as PowerPoint, Kinemaster, Powtoon, Camtasia Studio, Screencast O-Matic, Filmora, and Canva.

Implementation

The training activity for making learning videos was carried out at SMA Kristen Pandhega Jaya for one day on January 21, 2022. This activity started from 12.00 – 16.00 WITA with twenty (20) participants. The activities include opening, material presentation, and assistance in making learning videos (Figure 3). The implementation of the training activities was carried out by the implementation team's leader and the team members and assisted by three students of the Chemistry Education study program of Universitas Katolik Widya Mandira.

Figure 3. The implementation of activities (opening, materials presentation, and mentoring)

The implementation of the activity began with a prayer and continued with a speech from one of the lecturers of the Universitas Katolik Widya Mandira service team, then continued with a speech by the principal of SMA Kristen Pandhega Jaya. The training activities are divided into two sessions: the presentation of the material using the lecture method and the mentoring session in making learning videos using the CapCut application. The materials presented include the role of technology in education in the present and future, learning media, learning videos, applications used in making learning videos (Figure 4), and tutorials using CapCut applications (Figure 5). CapCut is the application used in the training because the CapCut application is an Android and iOS-based application that can be downloaded for free. The CapCut application has a file size of around 37 MB on the Google Play Store and 115 MB on the App Store. The CapCut application is easier to understand, easy to use for beginners, and flexible because it only requires a cellphone so that later the process of making learning videos will be easier for teachers.

In the mentoring session, the lecturer team, together with students, assisted the participants in the practice of making learning videos. Participants were divided into three groups, and participants were given the opportunity for 120 minutes to make a simple learning video for 3-5 minutes. During the process, the participants were accompanied by the service team, the lecturers, and the students. Participants are also provided with an explanation of how to use the CapCut application, thus helping participants remember the explanations given by the presenters. The learning videos that have been

made (Figure 7) are then displayed for joint viewing by the participants and the implementation team. From the mentoring session on making learning videos using CapCut media, it can be seen that there is an increase in knowledge and skills in making learning videos using CapCut. The training participants who previously did not know the CapCut application and how to use it could produce simple learning videos according to the instructions from the presenters and facilitators at the end of the activity.

Figure 4. Slides of the presented materials

Figure 5. A brief tutorial on operating the capcut application

Figure 6. Learning videos made by the participants

Monitoring dan Evaluation

Monitoring is carried out while the activity is taking place. Based on the results of the monitoring carried out by the team, it can be seen that the participants were very enthusiastic about participating in this training activity. This can be seen in the attendance of the participants during the training. 100% of participants arrived on time and attended the training until the end of the activity. In addition,

during the presentation of the material, the participants showed an attitude of interest in the presented material. Some participants also documented the important points of the material. Even the enthusiasm for participating in the training was still visible during the practice and presentation of the learning videos results. During practice, some participants started trying to make learning videos according to their respective fields of knowledge. However, making learning videos did not run smoothly because some participants still did not understand the function of some effects and animations in the CapCut application. In addition, the practice time did not go as scheduled because the participants did not have the CapCut application on their cell phones, so it took time to download the application first. Several participants also stated that they knew the CapCut application from the training.
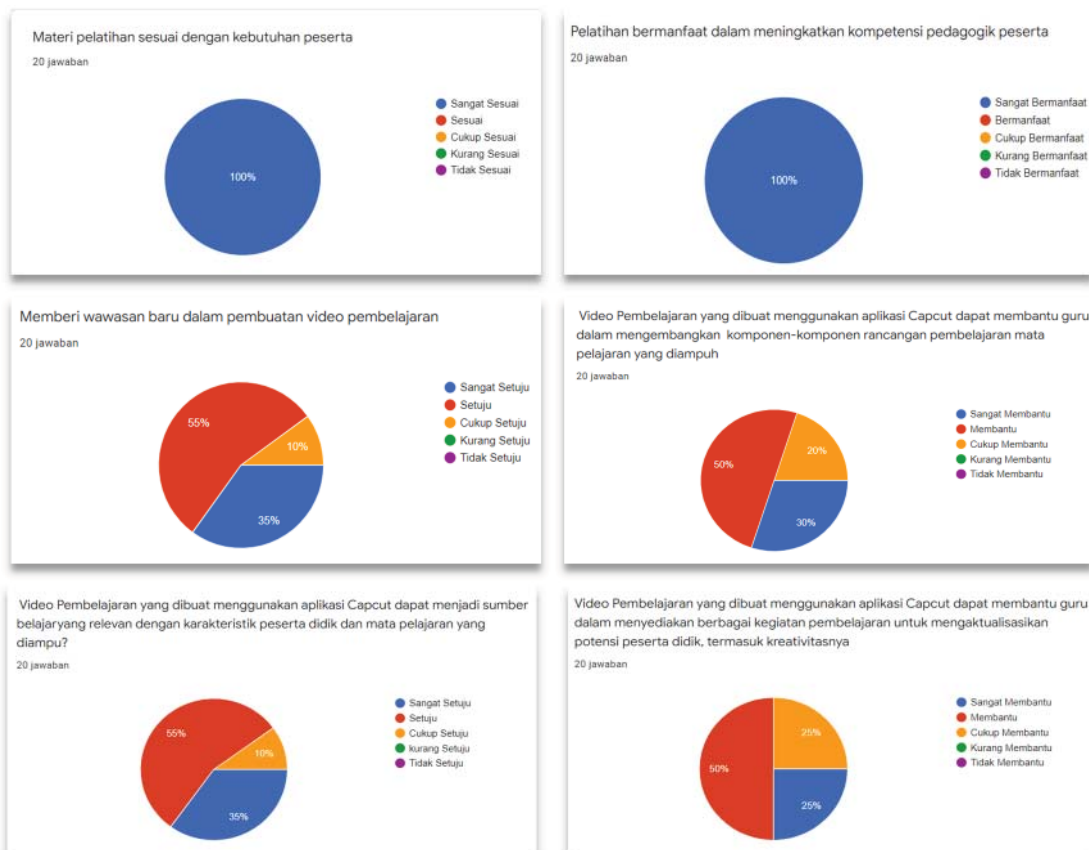

Figure 7. The analysis results of the training evaluation

At the end of the activity, the team and participants conduct a joint evaluation of the implementation and usefulness. The evaluation process of training activities is carried out using questionnaires through Google Forms, discussions, and direct observations. The evaluation results using the Google Form (Figure 8) showed that 100% of the participants stated that the material presented was useful and followed the needs of SMA Kristen Pandhega Jaya teachers. The applications explained can also be understood so that they can be practiced well. In indicator 3, related to the new insights in making learning videos, 55% of respondents answered agree, 35% strongly agree, and 10% quite agree. As seen from the presentation of answers, respondents were more dominant in agreeing that this training provided new insights into making learning videos. Then, in question indicator 4 related to learning videos, using the

CapCut application can help the teachers develop learning components. 50% of respondents answered helpfully, 30% very helpful, and 20% quite helpful. The presentation of answers on indicator 4 is more dominant in stating that learning videos made using the CapCut application help develop learning components. Later, in question indicator 5 regarding learning videos using the CapCut application as a learning resource that is relevant to the characteristics of students and the subjects being taught, 55% of respondents answered agree, 35% answered strongly agree, and 10% answered quite agree. As seen from the answers, it was more dominant to agree with indicator number 5. Furthermore, indicator number 6 surveyed related to the material that helps teachers provide learning activities. The evaluation results showed that 50% of respondents said they were helpful, 25% said they were very helpful, and 25% said they were quite helpful; thus, the results of the dominant respondent to the helpful answer.

Some of the evaluations recorded during the activity were: 1) participants seemed more creative in presenting subject matter through learning videos but were limited to learning materials such as pictures, supporting videos, and required animations; 2) the team did not inform the participants to prepare the basic materials and videos to be edited during the activity: this is what causes the implementation of the practice lasts longer than the scheduled time; and 3) the CapCut application has several advantages and disadvantages (Table 1).

Table 1. List of Advantages and Disadvantages of CapCut Application

Advantages	Disadvantages
- The available features are complete and able to support the editing process. - Easy to use. - Has tutorials that can help the users in video editing. - Has templates that can be used immediately for users who are not proficient yet in video editing. - Has a tutorial. - Watermark free.	- It requires quite a large memory space. - Smartphones with small RAM and memory space tend to be slower in operating the application. - The text inserted in the video cannot be set to *Justify*, making long text look untidy. - Non-contrast backgrounds may cause a partial loss of the image in the video.

Discussion

This video creation training activity was designed and implemented to answer the needs of teachers at SMA Kristen Pandhega Jaya in facing the development of education and information technology in the era of globalization. Education development cannot be separated from the invention of new technologies. The use of technology in education provides benefits as a medium that can support the implementation of the learning process, including as an information and learning tool. One of the technological benefits of education is a learning medium that can assist the teachers in delivering the learning materials by stimulating students' attention, interest, thoughts, and feeling during the learning process. The existence of technology is also very helpful for the teachers to actualize abstract concepts in the forms of models, multimedia learning, or audio-visual learning media so that students can easily understand these concepts (Hardeli et al., 2020). The results of a survey conducted via Google Form showed that some teachers at SMA Kristen Pandhega Jaya have adapted to changes in learning implementation. However, the use of this technology has not been fully integrated with the learning process at SMA Kristen Pandhega Jaya.

The teachers' competence in using technology for the learning process greatly affects the learning process quality at school (Syahroni et al., 2020). For this reason, this service activity is designed to answer the needs of the teachers at SMA Kristen Pandhega Jaya. Based on the evaluation results of the service activities that have been carried out, it has provided positive results and impacts for teachers at SMA Kristen Pandhega Jaya. The training activities run as expected by the participants, and the objectives of the training activities can be achieved properly.

This activity is very useful in improving the skills and creativity of teachers in preparing learning media. It is important because skillful and creative teachers can manage classes well and use learning media optimally to increase student motivation and learning outcomes (Oktiani, 2017; Supartini, 2016). In addition, this training activity helps the school solve problems teachers face in making learning videos. This is based on the results of interviews where some teachers still do not use learning videos because they experience problems, such as application details that are too complicated to operate. Through the training activities of making learning videos, teachers can also get additional information and knowledge about the application that is easy to use in making learning videos.

Training is an activity that can be done to overcome problems that exist in the community. It is because, at the time of training, the community can learn directly so that the knowledge gained and the skills can be honed. This is also in line with what was conveyed by Putu et al (Putu et al., 2021), who conducted training activities for making learning videos using the Filmora application for SD N 1 Paket Agung teachers, where the training carried out had a positive impact and increased participants' insight and skills. The same result is also illustrated by the training activity for making creative learning videos using the KineMaster application conducted by Nursafitri et al (Nursafitri & Purwanti, 2021). This training is for PAID teachers in the Tanjung Bintang sub-district, which impacts teacher skills in preparing learning media. Those other learning video-making training activities carried out by service team show that this activity benefits teachers in improving their pedagogic competencies (Rahmi & Cerya, 2019; Taib & Mahmud, 2021).

4. CONCLUSION AND RECOMMENDATIONS

Based on the evaluation results, the training process was running according to the activity's objectives and impacted the school, especially the teachers. During the implementation of the activities, the participants seemed enthusiastic about participating in the training activities. Apart from that, the material presented also follows the participants' needs and can be easily practiced. With this training in making learning videos, there are some benefits gained, such as 1) increasing the teachers' pedagogic competence, especially regarding the creativity and skills of teachers in preparing learning media, and 2) providing new information and knowledge for teachers about the simple application that can support them to make learning videos. Thus, it is easier for teachers to convey concepts or learning materials, especially abstract concepts.

This activity has limitations in terms of implementation time. Therefore, with this limitation, the participants should continue to improve their skills in making learning videos by trying all the application features and several other applications that can also be used. In addition, continuous assistance is needed in order to achieve optimal results.

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