

Digitalization of Multimedia-Based Publishing Management Learning Media at the State Polytechnic of Creative Media, Indonesia

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Abstract. The State Polytechnic of Creative Media (Polimedia) utilizes the importance of learning media to continue improving the quality of learning. Polimedia has yet to be maximized in Digitizing Learning Media, and lecturers still use the lecture method in explaining publishing management material. Polimedia should have multimedia and animate interesting lectures for students. The urgency of the research is the importance of computer-based multimedia in learning so that real efforts need to be made to improve the quality of learning so that learning objectives can be achieved effectively and students' soft skills are increased. This research aims to digitize the Learning Media for Animation Multimedia-Based Publishing Management course and to obtain digital visualization of animation-based multimedia publishing management models. The research method used is a qualitative method by conducting focus group discussions and making video products based on student users. The result is a learning product in the form of a multimedia learning video, and conclusions generated by video products can be accessed anywhere and anytime. The target indicators for the success of this research output are: Final Report, Sinta 3 Accredited Journal of Informatics Research (JRI), Attending an International Conference seminar organized by the State Polytechnic of Creative Media.

Keywords: Digitization, Learning Media, Publishing Management, Multimedia, Animation

1. Introduction

Education is one of the essential social levels when forming morals in everyday life, both in their environment and in society. Education is devoted together as a means or tool that is intended together in the social, economic and political spheres [1]. The rapid development of technology propagates all educational facilities with various choices that are used for the field of education. Therefore, it takes a unique and exciting learning media. Learning media must be easily understood by students so that the learning materials displayed by the teacher can be one of the Distance Learning media solutions [2]. In addition, video media is also quite fun and does not easy to make students feel bored in the learning process, making it an effective media used during learning and increasing students' interest in learning [3]. Thus, it can upgrade the potential of the media for students and make the learning process more attractive [4].

Learning media is a container of messages; learning messages contain the material to be conveyed, and the learning process is the main goal to be achieved [5]. The use of digital-based learning can undoubtedly be applied in various educational sciences, which in the learning process requires the role of a lecturer who supports so that the digital-based learning process can run smoothly according to learning objectives [6].

Polimedia is specially designed to produce skilled human resources for the needs of Human Resources in the Creative Industry area. The State Polytechnic of Creative Media also uses

multimedia-based learning media to improve the quality of learning. The Ministry of Education pretends by estimating that Polimedia can produce graduate skills milestones aligned with the willingness of the creative contribution zone and the existence of educational efforts based on creative and entrepreneurial capabilities. One of the study programs it has is the Graphic Design Study Program.

Polimedia should need to make animation and interactive media on exciting and interactive lecture material for its students. Only now, Polimedia has been maximized in Digitizing Learning Media, and lecturers still use the lecture method in explaining publishing management materials. Therefore, an instructor/lecturer who is accompanied by technological advances in teaching can schedule various role models and as a teaching tool that leads to the threshold of using ICT [7].

The urgency of this research is the importance of multimedia-based teaching in learning so that genuine efforts need to be made to improve the quality of learning and effectively achieve the learning process. That way, soft skills in students will develop, and Polimedia can realize visions that have not been realized in real terms [8, 9].

The novelty of this research is learning media in the form of videos combined with the use of internet applications as access to carry out the learning process. The costs used in making this learning media include costs for conducting focus group discussions between students and lecturers, discussing material on publishing management by designing presentation materials using PowerPoint, and costs for renting shooting equipment and the editing process, which costs around Rp. 9,000,000,-.

In terms of reliability, using this learning video will have a positive impact because it is easy to access, and its performance in appearance is also excellent because it is systematically designed and easy to understand.

Several types of information are conveyed in multimedia, such as text, audio, video, graphics or photos [10].

1. Text, the text is one of the elements that are often found in the multimedia world. Text is used to convey written messages to readers and is also a form of communication that has been used for a long time, and text is often combined with photos in a presentation.
2. Audio is often combined with media and has various functions. One of them, audio, is used to complete a presentation.
3. Images/photos, Images are also one of the essential elements in a presentation. The image serves as a support for the presentation so that the reader quickly understands it.
4. Video is a collection of moving images often combined with other elements such as audio and text. Video supports presentation materials delivered, especially in explaining the process of something happening.

By utilizing multimedia as a learning medium. Thus, multimedia-based learning can interestingly convey subject matter and is equipped with visualizations in the form of images or videos to support the material to be delivered and can also create an interactive atmosphere and make it easier for readers to understand.

2. Research Method

2.1. Research Stages and Design

The research was carried out at the State Polytechnic of Creative Media PSDKU Medan, especially computer laboratories, design studios, printing press studios, libraries, and other locations adapted to the collaboration of diverse research expertise and disciplines.

In the first stage, an initial study was conducted, namely, an initial concept of the research plan to be carried out. The second stage is the problem statement, namely looking at the existing problems, which is then carried out in the third stage literature review regarding references to books or journals that will be used in research. From the literature review results, conceptual research was obtained, which became the initial basis for research. The fourth stage is conducting a research method in which there are six steps in doing so consisting of planning, data collection, product dummy, first product trials, product revision and product implementation. This stage is a very important stage because, in the process, this stage is the core of all stages in making learning video products. This section is a qualitative research stage in which the researcher is the key instrument. The sampling of data sources is carried out purposively and snowballed, and the collection technique is tri-angulation. The fifth stage is the completion of the product as a whole, as well as preparing reports for publication. The final stage is to evaluate and monitor all the processes carried out and then publish as the final condition of the research [11].

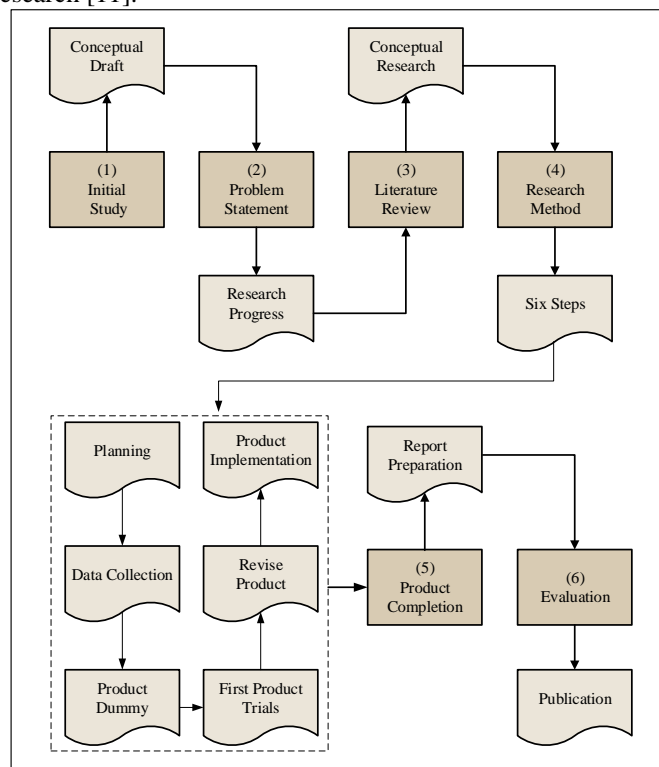


Fig 1. Research Stages and Design

2.2. Data Acquisition and Data Analysis Techniques

The information sorting techniques used are:

- a. Observation
A way of disaggregating information is by directing the direct perception of the distribution of the executive learning process.
- b. Library Research.
Includes books, journals, proceedings, patents and various articles relevant to media learning. Data analysis and editing process using Adobe Premiere software for presentations using Microsoft Power Point software.
- c. Experiment
Conduct direct research on the digitization of publishing management learning media.

3. Results and Discussion

The following are the stages of designing a video that will be used as learning for students.

3.1. Design

This stage discusses the design carried out by the author. There are several stages of preparation carried out before carrying out the implementation of multimedia-based learning [12, 13]:

1. The authors prepare and determine the teaching materials to be explained.
2. The authors prepare the materials and tools to be used, such as laptops, cameras, microphones, materials to be explained and green cloth used as a green screen.
3. The last preparation is to prepare the script and pictures that have been prepared to be broadcast together with the writer for the shooting process.

3.2. Pre-Production

The initial stage is to hold meetings by forming focus group discussions between lecturers and students to get clear concepts and material to be conveyed to users. This stage is essential before the video presentation format is created in a format in the form of a multimedia learning video. The material created is then prepared in the form of a presentation, along with other supporting materials in the form of stationery and accessories. This stage describes the format used by the author to present multimedia learning videos. Then, the writer explains the material contained in the written media. The author uses a lecture-capture format and is recorded in front of a blackboard or other media.



Fig 2. Format Lecture-Capture

3.3. Production process

The author explains in front of the camera with a green background. The function of the green background is to display presentation material that will be inserted in the video editing

process. In front of the author is also provided material to be explained so that the author can explain the materials that have been compiled [14]. The location of the video shoot is done in a closed room to avoid noises that interfere with the shooting process.



Fig 3. Filming Process

3.4. Editing Process

Before being produced and displayed, the video recording will be edited using Adobe Premier software. Then, the author's voice and presentation materials are inserted into the video through a green background. In this process, editing/cutting is done on the recording and combining the cut scenes during the shooting process until the recording becomes airworthy. Before being produced and displayed, the video recording will be edited using Adobe Premier software. Then, the author's voice and presentation materials are inserted into the video through a green background. In this process, editing/cutting is done on the recording and combining the cut scenes during the shooting process until the recording becomes airworthy.

This process requires careful skill from the creator because the result is a result that must achieve a perfect appearance. The process of using the software must also be accompanied by the computer's capabilities, which are specific to the processor and VGA capacity that can run perfectly without any interruptions due to buffering or slow processing.

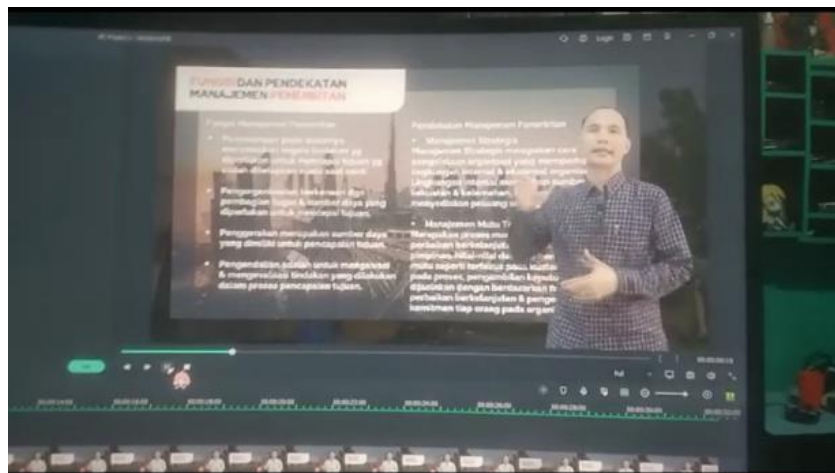


Fig 4. Editing Process Using Adobe Premiere Software.

3.5. Results

The following is the final result of making learning videos for students. Figure 4 shows the title of the material to be explained and is also equipped with a program to let the reader know what material will be explained. Then in Figure 5, it is followed by a self-introduction and an introduction to the material to be explained.



Fig 6. Introduction

4. Conclusion

Current technological developments have changed and developed teaching methods in the field of education. During the COVID-19 pandemic, multimedia has become a tool in the learning process because it provides practical teaching and learning. It also makes it easier for students to access video lessons anywhere and anytime. In addition, the learning process in the current era must also be adapted to the development of students. Multimedia-based learning also creates efficient use of time, and teachers do not need to repeat existing

material. Students also respond actively to the material presented, and this indicates the development of social interaction in learning.

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