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Development of Interactive Learning Media Using Canva in the Basic Subject of Computer Network Engineering and Telecommunication Expertise Program Class X at SMKN 1 Rejotangan

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***Abstract*—This study aims to develop interactive learning media to improve learning outcomes in the basic subjects of the Computer Network Engineering and Telecommunications expertise program. The model used in the development of this interactive learning media is the ADDIE model. The sample of this study was 10th grade TKJ students at SMKN 1 Rejotangan with a total of 35 students. Student learning outcome data was obtained from a questionnaire after learning through Canva. Based on the results of expert validation and product trials, interactive learning media are feasible to be implemented. The test results after learning through Canva obtained a score of 1361 and if converted into a percentage it becomes 88%, meaning that with learning through Canva students strongly support this learning because learning through Canva can be done online and provides an opportunity for students to be more enthusiastic when learning the subject, as well as improving students' understanding of material that seems difficult in the eyes of students**

Keywords— Interactive Learning Media, Canva, Basics of Computer Network Engineering Expertise Program, Development

I. INTRODUCTION

Learning is essential for students to gain valuable knowledge, and every educator must master the material they teach and convey it effectively and efficiently to students. This is also an integral part of an educator's teaching performance for all types and levels of education. Teaching performance is also related to the educator's ability to explain the content of the lesson and interact with students. Learning is essentially an effort to teach students, and learning design is the arrangement of these efforts to foster learning behavior [1].

Learning facilities are anything in the form of movable or immovable objects to create effective and efficient learning activities. Learning facilities themselves include facilities needed in the teaching and learning process, both movable and immovable, so that the achievement of educational goals can run smoothly, orderly, effectively, and efficiently so that students can achieve optimal results [2]. Learning facilities are also important because they determine students' attitudes in learning to see whether students are interested in it or not at all, because in learning facilities are all the needs that must be met in the learning process, facilities also play an important role in improving student learning outcomes [3].

Information and communication technology is the application of knowledge and skills used by humans to transmit information or messages with the aim of helping solve human problems and achieve communication goals. The early use of computers for writing, creating graphics and images, and as a powerful data storage device, has evolved into a communication tool with a flexible network that can span the globe. With technological advances, the process of human interaction is able to reach all levels of society in every part of the world, becoming increasingly open. The internet, as one of the impacts of new technological developments, can essentially not only be a door to understanding the culture of a particular society, but also a tool for expressing that culture itself [4].

The use of media is also necessary to make learning more interesting for students and the media used is made easy to understand so that students do not have too much difficulty using or learning the material from the media that students will use. Meanwhile, solutions to maximize the use of the internet in education must be done by educators and students must have access to digital technology in carrying out learning activities, educators must also have knowledge and competence or expertise in using technological tools, and there is a need for government intervention to find out the facilities and infrastructure in educational institutions [5].

SMK Negeri 1 Rejotangan is a vocational high school located in Buntaran Village, Rejotangan District, Tulungagung Regency, which was founded on May 6, 1992. SMK Negeri 1 Rejotangan has 7 departments, and the department that will be tested for media development is the Computer Network Engineering (TKJ) department. This department was chosen because it is in accordance with the title, namely regarding the development of interactive learning media using Canva.

II. LITERATURE REVIEW

A. instructional Media

Learning media is a tool that can be used to help the learning process to be more effective and optimal [6]. Nowadays, the learning process is no longer limited to books and blackboards. Teachers can use a wide variety of learning media, including visual, audio, and audiovisual media. Media is also a tool to assist teachers in the classroom learning

process. Media can convey messages and stimulate students' feelings and desires, thereby encouraging the learning process in each student. Learning media is a means of conveying learning information from teacher to student. Material or messages can be conveyed through various types of media, one of which is visual media. Visual media is a medium that can be enjoyed through the sense of sight. Visual media such as posters, graphics, comics, and photos have a significant impact on student psychology, strengthening memory, and attracting students' attention and interest [7].

B. Canva

Canva is a technology-based application that provides a learning space for every educator to achieve their learning objectives. It provides a wide variety of templates to engage students in the learning process. Canva offers a variety of examples for educators to use in presentations to students, including engaging PowerPoint templates [8].

Canva's advantages according to [8] are: 1) has a variety of graphic designs, animations, templates, and interesting sheets, 2) Able to adjust time in designing effective learning media, 3) Designing learning media can be done at any time, and can be done using a cellphone or laptop, 4) This application is easy to access for educators and students, 5) Using the Canva application, makes an educator creative and innovative. As for the shortcomings of Canva according to [9] are: 1) Can only be accessed online, 2) Some new features can be accessed with a premium account, 3) Video designs tend to take a long time to download, 4) There is no table insert feature for creating presentation slides.

C. Basic Materials for the Computer Network and Telecommunication Engineering Expertise Program

There are 3 materials that will be used, the first material is about computer components, then the second material is about 5G technology, then the third is about computer network technology and telecommunications equipment.

III. RESEARCH METHODOLOGY

This study uses a research and development (R&D) model to produce a product and test its feasibility. This development model includes the stages of Analysis, Design, Development, Implementation, and Evaluation. This study aims to develop interactive learning media using Canva and test the effectiveness of learning using the learning tools developed by the researcher in terms of student interest.

The ADDIE model is widely used as an alternative in developing specific products or models in learning. The advantage of this model is that the resulting product or model is valid because each stage is based on a thorough process of analysis, design, development, implementation, and evaluation [10]. These development stages include:

A. Analysis

The first stage is the analysis stage. This stage involves conducting observations and interviews with the subject teachers of the Basics of Computer Network Engineering and Telecommunications Expertise Program for class X TKJ at SMK Negeri 1 Rejotangan. In this stage, researchers used this stage to seek information regarding the needs met in the process of developing interactive learning media.

B. Design

At this stage, the researcher creates a design that will be developed after analyzing the required form from the observations that have been carried out. And at this stage, the material is compiled by collecting teaching materials owned by the subject teachers of the Basics of Computer Network Engineering and Telecommunications Program, and for the materials used all come from the internet, and the design that will be used is as follows:

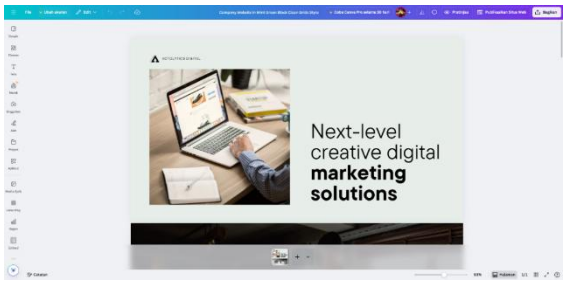

Figure 3.1 view when developing media

The developed design can be seen in Figure 3.1. This design is the raw material from the website, then the other design is using a presentation design and the image of the presentation design can be seen in Figure 3.2.

Figure 3.2 presentation design view

C. Development

At this stage, the previous process from the design stage after making the plans that have been prepared will then be developed into media that will be ready for use. In this stage, researchers use Canva as a media that will be used in the learning process, and by developing this media, it can facilitate the learning process of the Basics of Computer Network Engineering and Telecommunications Expertise Program, and increase interest both in the learning process and in terms of media utilization, it is hoped that they can understand that there are other learning processes and can be of interest among teenagers because this learning media is very easy and can be used anywhere and anytime because it can be used via cellphone.

D. Implementation

This stage is the step to implement the learning process that has been developed. At this stage, the developed media then goes through the implementation stage, where it is tested on students in the learning process. Student enthusiasm and teacher interest can be gauged by the direct use or application of Canva in the learning process.

E. Evaluation

At this stage, it is used to see whether the planned media development is successful using Canva, and at this stage it is also used to see whether there are things that need to be improved.

IV. RESEARCH RESULTS

After making a sequence from the beginning of looking for information from the school, then making a media design for learning and then applying it to students through classroom learning, the results of developing learning media are as follows:

A. Product Development Results

Figure 4.1 website media display

The image above is the initial display when using the media and below there is a brief explanation regarding the material, and below there is a choice of materials which contain 3 materials that lead to the material that has been created, and the display will be as follows:

Figure 4.2 display of learning materials

Later, the display when clicking on the material selection will be like figure 4.2 and in the material there is an explanation regarding the material and there are also questions listed in the material where the questions themselves are also made with an interactive quiz using a wordwall and the display will be as follows:

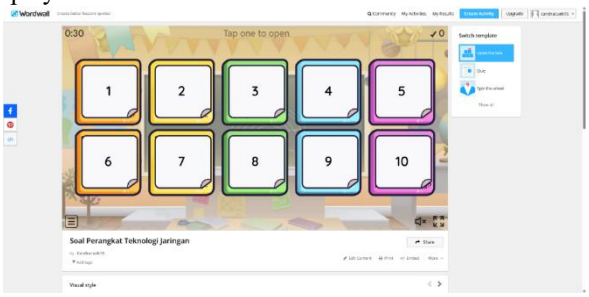

Figure 4.3 wordwall question display

To see the appearance of the questions on the wordwall, you can see in Figure 4.3 and the questions are made like a game so that students are interested in working on the questions that are made like a game.

B. Product Implementation

This implementation was conducted to test user responses to the development of interactive learning media using Canva and to determine the product's suitability. This testing was conducted using a questionnaire containing student assessments of the interactive learning media development used. The results of the media assessment can be seen in Table 4.1.

Trials	Score	Maximum Score	Percentage(%)	Information
Student	1361	1540	88%	Eligible

It can be seen that the student got a score of 1361 out of a maximum total score of 1540 and obtained a percentage of 88% with the description of being eligible.

CONCLUSION

And to conclude the development of interactive learning media using Canva in the Basics of the Computer Network and Telecommunication Engineering Expertise Program at SMKN 1 Rejotangan, the following conclusions can be drawn:

"The development of learning media can be said to be suitable for use with a percentage of 88% with learning that is fun to do because it can be done anytime and anywhere".

By looking at the results of the research that has been conducted with the research title "Development of Interactive Learning Media Using Canva in the Basic Subject of Computer Network Engineering and Telecommunication Expertise Program for Class X at SMKN 1 Rejotangan" it can be concluded that the development of interactive learning media using Canva has a significant influence which can be seen in table 4.1 for the results of the development of learning media from students getting a percentage result of 88% which can be said to be very influential for students on learning carried out using Canva. Thus the development of interactive learning media facilitates the learning of class X TKJ students at SMKN 1 Rejotangan which can be done anytime and anywhere in the basic subject of computer network engineering and telecommunications expertise program.

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