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Development of Video-Based Interactive Learning Media to Improve Students' Critical Thinking Abilities

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Abstract

Research has been carried out to develop video-based learning media at SMKN 02 Dompu using Camtasia studio 8 software with the aim of facilitating the delivery of basic electricity and electronics material. The data was analyzed descriptively quantitative-qualitatively with the results: media experts obtained a feasibility percentage of 68%, material experts 97%, student responses 93%, pre-test questions 71%, and post-test questions 90%. Judging from the results of video-based learning media data analysis is said to be feasible by obtaining a valid, effective and practical score that meets the feasibility value. The conclusion of this research is that video-based learning media to improve students' critical thinking skills created using Camtasia Studio 8 is suitable for use as a teaching tool.

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Abstrak

Telah dilakukan penelitian dengan mengembangkan media pembelajaran berbasis video di SMKN 02 Dompu menggunakan sofware Camtasia studio 8 dengan tujuan mempermudah penyampaian materi dasar listrik dan elektronika. Data dianalisis secara deskriptif *kuantitatif*-kualitatif dengan hasil: ahli media memperoleh persentase kelayakan 68%, ahli materi 97%, respon siswa 93%, soal pretest 71%, dan soal posttest 90%.dilihat dari hasil analisis data media pembelajaran berbasis video dikatakan layak dengan perolehan skror valid,efektif,dan praktis memenuhi nilai kelayakan. Simpulan penelitian ini adalah media pembelajaran berbasis video untuk meningkatkat kemampuan berpikir kritis siswa yang dibuat menggunakan Camtasia studio 8 layak digunakan sebagai alat bantu dalam mengajar.

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1. INTRODUCTION

Education is a process of learning knowledge, skills and habits of a group of people which are inherited from one generation to the next through teaching, training and research.

Learning media is a means or tool used to convey a message or learning information using learning media and using learning media can influence the learning environment (Anshor, 2015). According to Azhar (2013) states that "learning using audio visuals is the production and use of material that is absorbed through sight and hearing and does not entirely depend on understanding words or similar symbols". The use of interactive video media which is designed according to the needs during the learning process is quite influential on the results of a student's effectiveness. The use of appropriate and interesting learning media can also influence a student's view of the material presented. The use of learning media can bring success to both teachers and students. Learning media functions to make it easier for students to master lesson material, which is presented in audio-visual form. Vocational High School (SMK) is one of the educational institutions that produces graduates

ready to enter the world of work. National Library Education and Training Center (2019) Law of the Republic of Indonesia Number 20 of 2003 concerning the National Education System in Article 15 states that vocational education is secondary education that prepares students primarily to work in certain fields. Djatmiko (2018) states that "vocational education is education that prepares the formation of skills, abilities, understanding, behavior, attitudes, work habits and appreciation for the jobs needed by people in the business/industrial world".

The presence of learning media is expected to be able to eliminate students' boredom in learning, as well as improve students' way of thinking so that students are more focused and more easily digest the material presented during the learning process. According to Mustholiq, et al (2007) learning media has an important role in the teaching and learning process, because it can make the learning atmosphere more lively and meaningful. Sudjana (2013) stated that learning media is very useful in the student learning process, including: (1) teaching attracts more students' attention so that it can foster learning motivation; (2) the meaning of the learning material will be clearer so that it can be better understood by students; (3) teaching methods will be more varied. Good media must measure its level of suitability from the aspects of validity, practicality and effectiveness. MM Sanaky (2021) the definition of validity is an aspect of measurement accuracy. Merriam Webster (2023) practical is a word that has several meanings, namely of, relating to, or realized in practice or action, as well as actively involved in some action or work, and relating to voluntary actions and ethical decisions. Polban Digital Library (2023) states that effectiveness is the expected result or target within the specified time.

Based on the background above, I aim to produce a product in the form of interactive video-based learning media on the basics of electricity and electronics to support video-based learning media on the basics of electricity and electronics. This video media was chosen as the learning media that was developed because video media is relatively easy to convey.

2. RESEARCH METHOD

The type of research chosen by researchers is development research, research and development methods are research methods used to produce a particular product and test the effectiveness of that product (Ennis (2011). Development research has many research models, one used by researchers in this research is the ADDIE development model. The ADDIE model is an abbreviation and in this abbreviation it consists of five main phases or stages, namely: Analysis, Design, Development, Implementation, and Evaluation (Sugiyono, 2015). The stages -The stages of the ADDIE model can be seen in the following image:

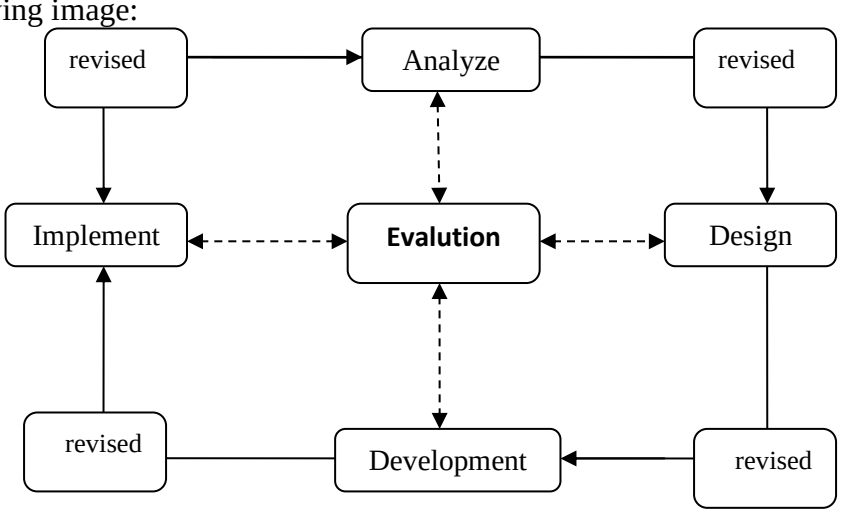


Figure 1. ADDIE development model

3. RESEARCH RESULTS AND DISCUSSION

3.1.Research result

1. Stage of Analysis

   Based on the results of interviews with teachers in Basic Electricity and Electronics subjects at SMK Negeri 02 Dompu, it was found that problems were still using conventional media with lecture and presentation methods carried out by students which were carried out during the semi-online learning period and the teaching and learning process time was limited so that the process less effective learning.

2. Design Stage (Design)

   In the second stage, learning media design is carried out. The first thing the researcher did was collect material that was in accordance with the references from the RPP and SYLLABUS which would be discussed in the learning video. Collecting other video making materials such as simulation videos, sound, background and images as support when making learning videos. Making learning videos. will be designed according to the design that has been determined.

3. Stage of Development

   This stage is the product development stage in the form of video-based learning media which is then accessed using the YouTube platform and using Google forms to complete the evaluation.

4. Stage of Implementation

   After carrying out several stages of assessment the development of the learning media design that has been developed will then be applied to actual conditions. After the product creation process and then the product developed will be validated, tested by students and teachers

3.2.Discussion

The development of video-based learning media to improve students' critical thinking skills is divided into 5 stages, namely Analysis, Design, Development, Implementation and Evaluation. The analysis stage was carried out to find problems that occurred in the process of learning Electrical Power Installation Engineering at SMK Negeri 02 Dompu. The analysis started from needs analysis, curriculum, and analysis of student characteristics by conducting an interview process with teachers of Basic Electricity and Electronics subjects at SMK Negeri 02 Dompu. Based on the results of interviews on November 11 2021, learning media is needed to help the learning process in order to increase students' enthusiasm for learning during the learning process so that the learning process can be made easier because of the learning media and to improve the quality of student learning.

The next stage is design, namely designing learning media that is able to improve students' critical thinking skills by preparing video-based learning media starting from preparing material taken from book references, modules from subject teachers as well as references from the internet that will be discussed, background, Images, text, sound and video simulations are appropriate and will be designed so that they become one complete video to be used as learning media for students. The learning media that has been designed will then be produced for validation by media experts and material experts, both of whom are STKIP Yapis Dompu lecturers. This validation activity aims to assess the suitability of the learning media being developed. From the results of the validation and revision process based on assessments and suggestions from experts. From the results of the validation and revision process of the two validations, the results obtained were a material expert eligibility percentage of 93% which was categorized as Very Valid, and the results of media expert validation obtained a result of 67% which was categorized as Valid. .

In the implementation stage, the product that has been revised and completed will proceed to the trial stage on 19 students of Class This stage is a long stage because the learning media developed is implemented with students. Meeting 1 is a teaching and learning process and giving

pretest and posttest test questions where questions are given before and after implementing the learning media which was developed to measure students' critical thinking abilities by providing essay questions with 5 questions which will be filled in via the Google Form platform and the results pretest and protest analysis can be seen from the results of the analysis above in the implementation section, and finally at the second meeting a questionnaire was given to 19 students who were designated as samples containing 10 questions with research categories: 1) Not Practical, 2) Not Practical , 3) Quite Practical, 4) Practical, and 5) Very Practical. From the questionnaire assessed by students, the level of practicality of the learning media developed was 86% with very practical criteria.

The final stage is the evaluation stage, because in this research there were no suggestions given by the students or the school, this research only reached the implementation stage.

4. CONCLUSION

From the results of the development of video-based learning media at SMK Negeri 02 Dompu, several results were concluded as follows:

a. There is video-based learning media at SMK Negeri 02 Dompu.
b. Video-based learning media is suitable to be used because it meets the requirements, namely valid, effective and practical.

Advantages and Disadvantages of Media

a. Excess
1) This learning media is easy to use
2) This learning Media makes it easier for teachers to convey hijaiyah material
3) The material presented in this learning video in the form of a video, there is a simulation video so that it can facilitate students' understanding of the material presented.
4) Video-based learning Media can be accessed with smartphones or computers.
5) This video-based learning Media can be used as an independent learning medium for students both at home and at school.

b. Lack
1) Using video-based learning media requires an internet connection because it is presented on the YouTube platform.

5. BIBLIOGRAPHY

Anshor, S. (2015). Penggunaan Media Pembelajaran Berbasis Video Terhadap Aktivitas dan Hasil Belajar Geografi. Jurnal, 1–9.

Azhar, Susanto. (2013) Sistem Informasi Akuntansi. Bandung

Djatmiko, I.W. (2018). Strategi Penulisan Skripsi, Tesis, Disertasi Bidang. Pendidikan. Yogyakarta

Ennis, R. H. (2011). Critical Thinking Assessment. Theory into Practice. Vol 32,. No 3, Hal 179-186. jurnal simetrik vol 11, no. 1, juni 2021.

Merriam Webster, 2023. pengertian Praktis. https://penelitianilmiah.com. Diakses 13 Agustus 2023

MM Sanaky · 2021 · pengertian validitas adalah aspek kecermatan pengukuran,

Mustholiq, Imam dkk. (2007). Pengembangan Media Pembelajaran Interaktif. Berbasis Multimedia Pada Mata Kuliah Dasar Listrik. Yogyakarta: Jurnal. Page 2. 165.

Perpustakaan Digital Polban. 2023. pengertian Efektif. https://digilib.polban.ac.id Diakses 13 Agustus 2023

Pusdiklat Perpusnas. 2013. Standar Pendidikan Nasional. Jakarta. Online https://pusdiklat.perpusnas.go.id/regulasi/download/6.diakses 15 Agustus 2023.

Sudjana. (2013). Media Pengajaran (Penggunaan dan. Pembuatannya). Bandung: Sinar Baru Algensindo

Sugiyono. 2015. Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Bandung : ALFABETA.