# Utilization of Canva-Based Information Technology in Interactive Learning Media to Improve Learning Effectiveness in Vocational High Schools (SMK)

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| Article Info | Abstract |
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| | *This study aims to analyze the use of Canva-based information technology as an interactive learning medium to improve learning effectiveness in Vocational High Schools (SMK). The use of Canva allows teachers to design materials that are more visual, engaging, and easily understood by students. Interactive designs produced through this platform are believed to increase learning motivation, active student engagement, and strengthen conceptual understanding in various vocational subjects. This study uses a descriptive approach by reviewing the implementation of Canva in the learning process, including planning, implementation, and student responses to the media used. The results show that Canva makes a positive contribution to learning effectiveness by increasing learning interest, ease of access to materials, and flexibility in content presentation. Thus, the use of Canva is recommended as an alternative, innovative learning medium in vocational high schools to support a more effective and engaging educational process.* |
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## 1. INTRODUCTION

Information and communication technology (ICT) plays a vital role in human life today, even on par with basic needs like food and clothing. Essentially, technology exists as a means to simplify activities and improve the quality and comfort of human life. Through communication, individuals can interact, develop themselves and their environment, and contribute to the dynamic development of human civilization (Wiryany et al., 2022). In line with these advances, technology has made a significant contribution to various areas of life, including education. The use of technological innovation in this sector aims to improve the effectiveness of the learning process and enhance the overall quality of education.

According to Ade et al. (2023), technological advances have had a significant impact on the education sector. Over time, the application of technology in education has continued to improve, so that almost all aspects of the learning process are now integrated with technology. This condition is reflected in the increasing number of vocational high schools, which is a clear demonstration of the progress of educational technology in Indonesia. Vocational education institutions have utilized various technology-based learning devices and media to support teaching and learning activities, with the aim of improving student competencies to align with the needs of the industrial world. Technology currently also

plays a primary role in facilitating teachers in implementing learning and helping students achieve maximum learning outcomes.

(Mulyani & Haliza 2021) The existence of technology facilitates the learning process while accelerating progress in the world of education. Along with the rapid development of science and technology (IPTEK), various components of the education system have undergone significant transformations, ranging from the teaching methods used by teachers, student learning patterns, to the continuous updating of teaching materials. While in the past, teaching and learning activities only took place through face-to-face classrooms, now the process can be conducted online with the help of various digital platforms such as Zoom, Google Classroom, and other distance learning media. This situation illustrates the significant role of technology in driving continuous change and innovation in the world of education.

The education sector is the primary foundation for shaping and advancing the nation's future generations. Achieving this goal requires the active participation of various stakeholders and appropriate policies to support improvements in the quality of education and the learning process (Dito & Pujiastuti, 2021). Despite various initiatives to improve education quality, Indonesia still faces a number of significant challenges (Zamhari et al., 2023). explained that the development of education in Indonesia is a journey full of dynamics and significant changes. Despite progress in expanding access and integrating cultural values, obstacles such as educational inequality, complex governance, and suboptimal utilization of technology remain issues that require serious attention.

Vocational High Schools (SMK) are formal educational institutions focused on providing vocational education at the secondary level, as a continuation of education at the junior high school (SMP), MTs (Islamic junior high school), or equivalent level. The primary objective of SMK is to equip students with professional readiness to enter the workforce, with the ability to choose and develop careers, and mastery of competencies relevant to their field of expertise. Furthermore, SMKs also function to produce a middle-level workforce that meets the needs of the business and industrial world, while producing productive, adaptive, and creative graduates as competitive citizens (Prasetyowati et al., 2021). Thus, the existence of SMKs is a crucial pillar in preparing a younger generation ready to enter and actively contribute to the industrial world.

Web-Based Learning, often referred to as e-learning or interactive learning media, is a learning method that uses websites as the primary medium, accessible via the internet. Canva-based interactive learning media offers a variety of features to support the needs of students and teachers. It functions as a supporting tool that facilitates independent learning for students. Its engaging features make it easier for students to understand the material presented, thereby reducing boredom during the learning process.

The selection of Canva as a platform for developing interactive learning media is that Canva is a web-based design and free online application, and easy to use. Canva is an ideal choice, especially for creating engaging and user-friendly learning media for both educators and students. Learning media created with Canva can help students better understand abstract material, thereby reducing verbalization in the learning process. With its powerful visualization capabilities, Canva allows learning materials to be presented in a clearer and more understandable way, especially for complex topics or those that are difficult to grasp verbally. (Zebua, 2023). With its various conveniences and advantages, Canva is an excellent choice for creating effective, engaging, and accessible learning media for students. Along with the development of educational technology, Canva offers innovative solutions that can improve the quality of learning at various levels of education (Wulandari et al., 2022).

## 2. LIBRARY REVIEW

Learning media is a tool used to convey information and educational materials, particularly in direct learning models, where the teacher serves as the primary source of information. In this approach, teachers are required to select and use appropriate and effective media to optimally achieve learning objectives. Media plays a crucial role in supporting the learning process because it encompasses various forms of stimulation that can influence students' thoughts, emotions, attention, and skills, thereby facilitating and streamlining learning activities (Angely et al., 2023).

According to Septy et al. (2021), learning media functions as a supporting tool that helps facilitate interaction between teachers and students during the learning process. The use of appropriate media has been proven to increase student learning interest, especially during the pandemic when face-to-face interaction is very limited. By utilizing effective media, students become more actively involved in learning, while teachers are encouraged to be more creative and participatory in delivering material. Good, easy-to-understand learning media that meet students' needs can be achieved through teacher creativity and sensitivity in designing and adapting media to student characteristics.

In addition to the various forms of media used in learning, technological developments have also given rise to interactive multimedia as an alternative increasingly used in the teaching and learning process. Interactive multimedia is a computer-based technology that combines various elements such as text, images, audio, video, and animation into a single, organized system. This integration is complemented by various links and features that allow users to navigate, interact, and even create within the system. In an educational context, the effectiveness of interactive multimedia depends heavily on teachers' mastery of information and communication technology (ICT).

(Bina et al., 2022) emphasized that teachers' mastery of ICT is a crucial element in fostering learning innovation. Therefore, teachers' skills in managing and utilizing technology not only support material presentation but also play a significant role in optimizing the function of interactive multimedia as an engaging, effective, and student-centered learning medium.

## 3. RESEARCH METHODS

This type of research is development research *and Development* (R&D), which uses the ADDIE development model, namely Analysis*, Design, Development, Implementation,* and *Evaluation.* This model was chosen because it provides a systematic and structured workflow to produce development products in the form of information technology-based learning media that can be used in the teaching and learning process in vocational schools. The development model used is the ADDIE development model. This model is used in systematic activities to solve learning problems related to the context of learning media so that students' needs at school are met. According to Branch (2010), the ADDIE model is a fundamental process for creating effective learning resources. The ADDIE model has a design that is easy, active, multifunctional, and lies in an instructional approach to learning. In its development, the ADDIE model uses general procedures related to instructional design. The ADDIE model has five stages: *Analysis*, *Design, Development*, *Implementation,* and *Evaluation*. (Rachma et al., 2023).

1. Level of Analysis

    This stage focuses on identifying problems, student needs, and the learning conditions taking place at the school. Analysis is conducted through observation, interviews, and document review to obtain an overview of:

a. Limited learning media available.
b. The level of utilization of information technology by teachers and students.
c. A need for media that is interactive, flexible, and easy to use. The results of the analysis show that most students need web-based learning media that can be accessed at any time and is able to present material more interestingly.

2. Design Stage (Planning)

At this stage, product planning is developed, encompassing display design, navigation structure, material selection, and supporting software selection. The design is carried out with attention to multimedia principles, such as the proportional integration of text, images, audio, and video. Storyboards and flowcharts are created to facilitate further development.

3. Development Stage

The development stage involves realizing the design into an information technology-based learning medium. This process includes:
a. Creating a simple yet informative user interface.
b. Integration of teaching materials into digital platforms.
c. Compilation of interactive features such as practice questions, learning videos, and navigation menus.

4. Implementation Stage

The learning media were piloted on a group of vocational high school students as direct users. At this stage, students were asked to use the media to learn specific material. Observations were conducted to assess student engagement, user comfort, and the media's effectiveness in supporting understanding.

5. Evaluation Stage

Evaluation is conducted both formatively and summatively. Formative evaluation occurs during the development process, while summative evaluation occurs after implementation. Evaluation results are used to improve the media to achieve optimal quality in terms of appearance, material suitability, and pedagogical value.

## 4. RESEARCH RESULTS AND DISCUSSION

1. Learning Media Development Results

The final product, a Canva-based interactive learning media, was successfully developed according to the ADDIE stages. The media provides materials in the form of text, images, video tutorials, and interactive exercises that can be accessed via computers and mobile devices. The simple interface makes it easy for students to navigate and understand the material presented.

2. Media Qualification Based on Expert Evaluation

Assessments from subject matter experts, media experts, and design experts indicated that the Canva-based interactive learning media fell into the "adequate" category. Subject matter experts deemed the content curriculum-aligned and easy for students to understand, while media experts highlighted the engaging visual design and user-friendly navigation features.

3. Student Responses to Learning Media

Field testing has shown that students responded positively to the use of Canva-based learning media. They felt the media helped them understand the material more quickly, become more independent, and become more motivated to learn. Flexibility of access was also considered an advantage, as students could learn anytime, anywhere, without being restricted by time or space.

4. Effectiveness of Media on Learning

Analysis during implementation revealed an increase in student engagement and understanding. Students were more actively accessing materials and participating in learning activities. This medium also helped teachers deliver materials more efficiently and modernly, in line with the demands of developing educational technology.

The findings of relevant previous research strengthen the theory that the use of information technology, especially the use of Canva, has a positive impact on learning. The results of relevant research are used as a reference and strengthen the research position with the results of research that has been conducted by previous researchers. Some of the results of previous research are:

1.  The results of Malahayati's (2023) research entitled "Development of Animated Video Learning Media Using Canva for Poetry Writing Material for Class X of Prayatna Private High School, Medan", with results based on a feasibility test by material experts of 77.37%, a media feasibility test by media experts of 94.17%. This means that the animated video learning media for writing poetry, assisted by Canva animated videos for class X high school students, is feasible and valid to be applied to small groups or large groups.

2.  The results of the research by Muhammad Ali Kasari, Sahiruddin, and La Arbin (2023) entitled "Development of ICT Learning Media Using Video-Based Canva Application for Class VII A Students of SMP Negeri 2 Fakfak" with results based on the feasibility test by the assessment of the two validators, namely media experts and material expert validators, got an average score of 90.5%, the results of the feasibility trial by small groups were 92.9%, and the results of the trial with large groups were 92.7%. This means that the learning media using the Canva application is effective or successfully developed in learning, especially on the material on the Role and Impact of Information and Communication Technology in class VII A of SMP Negeri 2 Fakfak.

3.  The results of a study conducted by Tantri Febriana et al. (2024) entitled "Development of Canva-Based Learning Media to Enhance Teacher Creativity at SD Negeri Krangrejo 1 Elementary School" showed a validity test conducted by media professionals with a result of 91%, and a validation test by material experts with a result of 98%. These results indicate that Canva-based learning materials can encourage teachers' creative thinking.

4.  The results of research conducted by Septiana Haliza Ramandha and Fitri Alyani (2024) with the title "Development of Audio Visual Learning Media Using the Canva Application in Social Studies Learning for Students of SDN CIRACAS 11 PAGI" with the results of the feasibility test validated by two validators, namely the media validator obtained a percentage value of 96% getting very feasible criteria, then the material validator obtained a percentage value of 86% getting very feasible criteria; while in student responses, obtained a percentage of 92% very feasible criteria. Based on the results of the assessment, a research conclusion was obtained stating that audiovisual learning media using the Canva application, which was packaged into a learning video on the material of the cultural diversity of my nation for grade IV at SDN Ciracas 11, was very feasible to use.

5.  The results of a study conducted by Irma Sakti et al. (2022) entitled "Development of Learning Media Using Canva in Basic Physics Courses at Maros Muslim University", with the results obtained from material experts 85%, media experts 80% which means it meets the criteria of very valid. The results of the student response questionnaire analysis obtained an average score of 4.23 with a percentage of 84.6% in the good category. So, it can be concluded that the learning media using Canva developed for the electricity material is very valid to use and gets a good response from students.

Validation results by material experts and media experts indicate that Canva-based media is highly suitable for use, as demonstrated in research by Malahayati (2023), Muhammad Ali Kasari et al. (2023), Tantri Febriana et al. (2024), and Septiana Haliza Ramandha et al. (2024). In addition to the validation results, positive responses from users, both school and university students, with an average feasibility score above 80%, also strengthen the evidence of this medium's effectiveness in supporting learning. Canva-based interactive media can enhance learning effectiveness by offering an interactive and flexible learning experience. Multimedia integration makes the material easier to understand and more engaging for vocational high school students, who tend to be more responsive to visuals and technology. Furthermore, the use of ICT aligns with the needs of the industrial world, which demands digital skills. Therefore, this learning medium not only improves learning quality but is also relevant to student competency development.

## 6. CONCLUSION

The use of information technology in creating learning media in Vocational High Schools (SMK) has been proven to significantly increase the effectiveness of the learning process. The use of technology-based media not only makes the material more engaging and easier to understand but also creates a more interactive learning experience. This encourages more active student engagement, making the teaching and learning process livelier and more meaningful. Not only is Canva-based learning media feasible and effective, it also has other advantages, namely its ability to encourage teacher creativity and increase student motivation. This aligns with the findings of research by Tantri Febriana et al. (2024), which shows that Canva-based media can be used for various types of learning, such as animated videos, audiovisuals, and other materials, thereby increasing the interactivity and effectiveness of the teaching and learning process.

In addition to improving the quality of material delivery, information technology integration also makes it easier for teachers to design and manage learning. Through various multimedia features, teachers can present material in visual, audio, or simulation formats that are relevant to the competency needs of vocational school students. This variety of presentations helps students understand the material more deeply and increases their readiness to face technological developments in the industrial world.

Overall, several previous studies have also shown that the use of information technology in learning media can create a more adaptive and modern learning environment. Flexible access to learning enables students to learn independently and sustainably, thus optimally developing their competencies. Therefore, the application of information technology in vocational high schools (SMK) is a strategic step to improve the quality of education while preparing graduates who are better prepared to compete in the digital age.

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