

Analysis of the Need for Canva-Based Electronic Modules to Improve Vocational Learning Outcomes

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Received: July 2, 2023

Revised: August 28, 2023

Accepted: September 25, 2023

Published: September 30, 2023

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DOI: [10.29303/jppipa.v9i9.4514](https://doi.org/10.29303/jppipa.v9i9.4514)

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Abstract: The goal of education is not just to increase one's head knowledge, but also one's skill set, outlook, and frame of mind. Learning results are affected by the quantity and quality of reading resources available in schools. "e-module" refers to an electronic media-based educational tool. Teachers and students alike can benefit from the enhanced imagination that comes from using Canva media. Descriptive qualitative research was used to investigate these issues; in both the literature review and the field research, the researchers provided precise and detailed descriptions of their observations and findings. The researchers here are concerned with the importance of manufacturing things, and their subjects are teachers in vocational high schools (SMK). Teachers have expressed a desire for electronic modules that serve as learning medium for teaching vocational subjects. Students who need learning media other than textbooks to transfer material to vocational high school students benefit from the usage of e-modules because they increase their understanding and learning efficiency both in school and at home. Students require learning materials that are accessible and engaging. One of these resources is an engaging electronic module with homework questions designed to aid in students' character development and moral upbringing.

Keywords: Canva; Based Electronic Modules; Vocational Learning Outcomes

Introduction

In Indonesia, Vocational High Schools (known with SMK) offer numerous options in both the technology and business management disciplines. Automotive light vehicle engineering is one of the competency options in vocational high school education, with the primary aim of equipping students with knowledge, attitudes, discipline, and skills. Education is the process of equipping students with the skills necessary to confront future challenges. Education is a means of producing skilled, knowledgeable resources. The quality of education can be enhanced in numerous ways, including through the implementation of learning activities. The availability of learning resources is a factor that contributes to facilitating the learning process. The term "learning resources" refers to everything that comprises

knowledge derived from a curriculum that is organized systematically and in accordance with the characteristics of students (Hendriyani et al., 2018).

Education is a factor that requires special attention in national development, specifically efforts to educate the nation's existence, because education will improve the quality of human resources, which are the primary capital used to implement development. Education that can support future development is education that can take responsibility for and address its educational problems. Education must address the learners' potential for conscience and competence. (Djonmiarjo, 2019). Education is anticipated to enhance not only knowledge, but also skills, attitudes, and mentality, allowing it to serve a broader and more lasting purpose.

In practice, each region pays close attention to the educational process that is tailored to national standards

How to Cite:

Holisoh, A., Setiani, H., Firdaus, H., Nulhakim, L., & Ruhiat, Y. (2023). Analysis of the Need for Canva-Based Electronic Modules to Improve Vocational Learning Outcomes. *Jurnal Penelitian Pendidikan IPA*, 9(9), 6772–6779. <https://doi.org/10.29303/jppipa.v9i9.4514>

with the same educational objectives at the elementary, middle, and high school levels, and even at the postsecondary level (Juniar et al., 2019). The minimum quantity and quality of reading materials in schools influence the learning outcomes of students. In accordance with the 2018 PISA results, which were published on December 3, 2019. PISA is a three-year OECD (Organization for Economic Co-operation and Development) initiative designed to assess the learning abilities of international students. According to the PISA report, Indonesia ranks 72nd out of 77 countries in reading, 72nd out of 78 countries in mathematics, and 70th out of 78 countries in science. The 2015 PISA exam simultaneously revealed these three characteristics. In 2015, Indonesia's scores in literacy were ranked 65th, its scores in science were ranked 64th, and its scores in mathematics were ranked 66th. Indonesia ranked at the bottom of Southeast Asian nations alongside the Philippines, which ranked last in reading and second-to-last in two other disciplines (Fardiansah et al., 2021).

Current technological developments continue to advance. This change also affects the educational aspect, particularly the utilization of learning media. Beginning with its initial corporeal form, the use of media in education has undergone numerous transformations; there are now many online learning media. This change will alter the teaching practices of instructors, who will begin incorporating digital media into the learning process (Hapsari & Zulherman, 2021). At this period, technological advancements influenced developments in other fields. The field of education is one sector that benefits from technological advancements. Electronic module-based creative and practical learning is an example of the use of technology in physics education (Nurul et al., 2019).

Learning activity is a process of delivering information or material in which the instructor and students interact and have a reciprocal relationship to achieve certain objectives. The utilization of learning media is one of the factors that contribute to the success of learning activities. The development of science and technology (IPTEK) currently necessitates that instructors are able to stay current on these developments. Frequently occurring problems in learning are typically attributable to the conventional learning patterns employed by instructors. This pattern is sufficient to readily bore students. Consequently, the learning process may not operate optimally, and the learning objectives may not be met (Faradila & Aimah, 2018). If all elements of a lesson exist, learning can proceed effortlessly. Teaching materials are a vital component of education. As a guide for learning process activities and a component that must be distributed to students, instructional materials are required. Learning programs utilizing instructional materials can be

implemented with greater frequency. Teachers who utilize instructional materials will receive specific material guidelines. The material's subject matter will make life simpler for both instructors and students (Septiadi et al., 2022).

Using educational technology in the form of learning media is not the only method to promote student-centered learning; face-to-face instruction and learning is more effective. However, the use of digital technology capabilities in the form of electronic learning media can make teaching and learning more flexible and contribute to increased student agency and skills for lifelong learning (Bond et al., 2018). Learning media are a tool for facilitating the dissemination of information during the learning process. Teachers are believed to benefit greatly from the use of learning media in the classroom. Innovative and appealing learning media are created so as to improve the quality and learning outcomes of students in the classroom. The media plays a significant role in motivating students to attend classes (Muthoharoh & Sakti, 2021).

A module is a form of instructional material that can be developed by educators. Mold-shaped Module is one of the pickled materials (Hamdani, 2011). Depending on the characteristics of the students, modules may be used independently. The existence of modules enables students to learn independently, tests their abilities through the exercises provided, reduces their reliance on textbooks, and enables them to express their learning preferences according to their abilities and interests (Hamdani, 2011). However, due to the COVID-19 pandemic, the government currently mandates online learning. This is done to prevent the transmission of COVID-19. Therefore, media or technology that can aid students in comprehending statistical material during online learning is required. "e-module" is one of the learning resources that employs electronic media. "E-Module" consists of self-study materials displayed in electronic format, including "audio, animation, and navigation." E-modules are essentially learning materials that are organized systematically using language that is easily understood by students based on their level of comprehension and age, so that students can study independently with minimal assistance and guidance from the instructor. Because books are expensive, limited in quantity, and cumbersome, they are less appealing to students. "E-module" is another option. Based on its benefits, the e-module can provide instructors and students with the necessary innovations for the learning process (Lestari et al., 2022).

The electronic module is a type of learning medium that is close to the actual world. The electronic module is one of the computer-based application-assisted media consisting of animated images and symbols. The animated images or pictures on the electronic module

are realistic, making it simpler for students to comprehend symbols and how a system functions. Computers can help slow learners comprehend lessons because they can convey information in a more effective and individualized manner, never forget, never get fatigued, and are excellent at carrying out instructions as desired by the program (Hafsah et al., 2016). Electronic module requirements analysis research is crucial because it helps to ensure that the modules: (1) satisfy user and market needs; (2) are best in performance and functionality; (3) are productively efficient; (4) are safe, dependable, and compliant with regulations; (5) lessen environmental impact; and (6) increase product competitiveness

Multimedia-based learning systems with learning content consisting of sound, images, and videos can present learning materials that are more engaging, not monotonous, and make it simpler to convey messages and meanings (Mulyadi & Ruhiat, 2022). The pervasive adoption of digital media technologies has sparked significant public and academic interest in comprehending the various media-enabled applications and effects. Technology (or media) use is frequently adopted as a key predictor or outcome variable in virtually every field of scientific study, whether researchers examine digital media use in contexts of persuasion, personal well-being, productivity, anxiety, aggression, or other physical, psychosocial, or political phenomena (Parry et al., 2021). E-Module is a digital-based, non-print teaching material product designed for independent learner study. E-modules may be combined with innovative learning models, which are believed to enhance student learning outcomes (Sholih & Ruhiat, 2022). Canva is one of the numerous design applications that can be used to create learning modules. Canva is an application that can be easily accessed via mobile devices or laptops, and it is also user-friendly for people of all ages, even if they are not millennials, due to its intuitive interface and readily available features (Admelita et al., 2022).

Canva is an online design program with a variety of design and modifying tools for creating a variety of graphic designs. The use of Canva media can enhance a teacher's creativity in preparing media and facilitate the process of delivering instructional content. This media can also make it simpler for students to comprehend messages or instructional materials presented in the form of text or video. In addition, the attractive appearance of Canva's learning media can help students become more attentive while learning (Nurhalisa & Sukmawati, 2022). This application has a number of advantages, including an attractive design, the ability to increase instructors' and students' creativity, and the fact that it can be designed using an Android instead of a laptop. Despite its benefits, the Canva application has a

drawback: we must have a data plan in order to connect to the application. In addition, there are a number of paid learning templates. The attractiveness of the Canva application for educational materials includes content with educational value and interest. If students are interested in viewing the content, it will be simpler for them to learn about it (Khairani & Mudinillah, 2022).

The use of novel technologies, such as artificial intelligence (AI) using the Canva app to identify and understand user needs more precisely and quickly, as well as data-driven approaches, to analyze market trends and preferences in greater detail, may be considered novel in research on e-module needs analysis. This can assist schools in creating e-modules that are better suited to and responsive to the requirements of pupils.

The ineffectiveness of educators' endeavors to provide learning materials stems from their difficulties with ICT-based learning media. Utilizing and creating high-quality learning materials that students can use to acquire knowledge and skills is one strategy for addressing this shortcoming. According to the conditions of scientific and technological progress, interactive multimedia-based electronic teaching materials are considered an alternative. The greatest educational resource for students. Due to inadequate conditions of facilities and infrastructure, as well as the condition of human resources, there are educators who are not prepared to use digital media and create digital technology-based media in the current digital age. The purpose of this study is to examine the need for electronic modules based on the Canva application in vocational material learning at vocational high schools in order to increase student interest in learning. The field study was conducted by distributing questionnaires to teachers via a Google form to determine their requirements for Canva-based electronic learning media.

Method

The problems in this study were examined using qualitative descriptive research, in which the methodologies of literature review and field study were described in detail in order to obtain research data. This study focuses on the necessity of producing a product, and the participants are teachers of productive subjects at vocational high schools (SMK). In November 2022, 11 members of the teaching staff for the automotive light vehicle engineering expertise program in the regencies and localities of Serang and Cilegon were sent a Google Form questionnaire to collect data.

Educators who provide material for the SMK automotive light vehicle engineering expertise program

will be provided with a link to a Google form questionnaire consisting of eight questions to assess the learning media requirements in the form of electronic modules. (1) Is it offered at your institution? Textbooks as a medium of instruction for vocational subjects? (2) When presenting material in class, do you use any learning resources besides textbooks? If so, please specify the learning medium. (3) When teaching vocational subjects in the classroom, do you utilize learning media other than school textbooks? (4) During vocational classes, did you utilize a specific learning technique? If so, specify the procedure. Did you use digitally-based learning media when instructing vocational subjects? When teaching vocational subjects, do you require learning materials that are engaging and can pique students' interest? (7) In which vocational subjects must you develop learning media, such as electronic modules, to pique students' interest in learning? So that it is simpler for students to comprehend vocational material and to study at any time and place. (8) Is it necessary to provide students with practice questions after presenting the fundamental competency per vocational subject material?

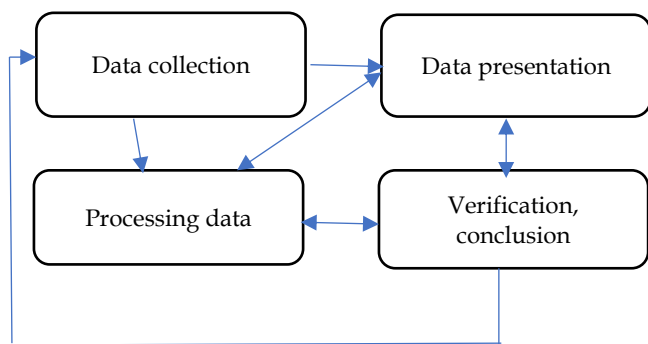


Figure 1. Research Flow

Research pertaining to the analysis of needs for the use of electronic modules employs a qualitative descriptive method based on the philosophy of post positivism, i.e. a method used to research on natural object conditions (as opposed to experiments) in which the researcher is the key instrument of data collection techniques carried out by triangulation (combined), data analysis is inductive and qualitative in nature, and the results of qualitative research are interpreted in terms of their qualitative nature.

Result and Discussion

The response of educators to the requirements analysis for the development of electronic modules to increase vocational high school students' interest in learning was gathered through a Google Forms questionnaire.

Learning Resources Textbooks as Learning Media

The use of textbooks as learning media in vocational subjects at school, based on the results of a questionnaire distributed to eleven teaching staff, reveals that all teaching staff use textbooks as learning media. According to Suharyono & Rosnawati (2020), indicate that textbooks are increasingly used as a basis for classroom learning internationally. The results of research conducted by TIMSS and Hiebert (World Bank) indicate that 93% of Indonesian schools use textbooks as a learning and instructional resource.

There is a significant relationship between textbook layout and learning objectives. How textbooks are written is an essential component of their presentation. The models and approaches used to write textbooks for these subjects will be relevant to their content and learning objectives. Textbooks must be adapted to the wearer because they are required in schools; therefore, students are the primary target. Student characteristics influence the development of children's learning, where each student has unique characteristics that must be taken into account during the learning process because they impact educational objectives (Hardi & Rizal, 2020).

Other Sources of Learning Media

The second query of the questionnaire relates to the availability of non-textbook learning resources for the delivery of learning materials for vocational subjects. And the following are the results of the questionnaire.

Table 1. Responses of Teachers to Learning Media Other Than Textbooks

Categories	Response of Teachers
Has	An electrical simulator
Has	Power Point, Adobe Flash, canva
	Yes, videos
	Car units, Conventional electrical
	trainers, YouTube, Teaching aids,
	Simulators, Power Point

There were two groups of responses to the questionnaire presented to the faculty: nine teachers members who had access to learning media in addition to textbooks, and one teacher member who did not. Educators may also make use of tools like a car simulator (Firdaus et al., 2021), Canva applications (Hapsari & Zulherman, 2021), Adobe Flash and power point presentations (Elpriza et al., 2022). Out of 11 educators who responded to a survey about whether or not their students had used learning media outside of textbooks when studying vocational courses, just one said they had not.

Learning Media Using Certain Models

The fourth question asks whether teachers use a particular model when imparting vocational content. Here are the results of the questionnaire:

Table 2. Teachers' responses to the use of specific models

Categories	Response of Teachers
The use of specific model media	Demonstration Peer Tutor Blended Learning Problem Base Learning Simulation Discussion

The Need for Electronic Module Learning Media

The seventh question on the questionnaire addressed the need for learning media in the form of electronic modules in vocational subjects so that students can comprehend the material more readily, find it engaging, and have access to it at any time and from any location. As for the responses of the teaching staff, as many as eleven individuals stated that they required electronic modules as learning media to teach vocational subjects to students. According to Maharcika et al., (2021), the level of practicality of electronic modules reaches 86.5%, with teacher and student responses indicating that electronic modules (e-modules) are very helpful in thematic learning processes and electronic modules (e-modules) can be used independently by using digital-based equipment. In addition, to assist teachers so that students are more active and independent, teaching materials in the form of electronic modules are recommended (Herawati & Muhtadi, 2018).

According to research conducted by Ramdhani et al. (2020), the value of Sig. Levene's Test for Equality of Variances is $0.062 > 0.05$, indicating that the data variance between groups A and B is homogeneous, or the same. Sig. (2-tailed) of $0.001 > 0.05$, it can be concluded that H_0 is rejected and H_a is accepted based on the independent t-test. Therefore, it can be concluded that there is a statistically significant difference between the average N-Gain results of the pre- and post-test psychomotor results of students in the control class group (A) and the experimental class group (B), which uses electronic modules. Admelia et al. (2022), found that Canva and Microsoft Word can attract students' attention and interest in learning, and make learning more effective, creative, and conducive. This is useful as supplementary teaching material because technological advancements have increased the demand for effective, user-friendly teaching materials in the education sector. Electronic modules are an option that can support the learning process of students (Paramitha et al., 2021).

Table 3. Value of Sig. Levene's Test for Equality of Variances

Value of Sig	Result	Conclusion
$0.062 > 0.05$	Homogeneous	statistically significant difference between the average N-Gain results of the pre- and post-test psychomotor results of students in the control class group (A) and the experimental class group (B), which uses electronic modules
$0.001 > 0.05$	H_0 is rejected and H_a is accepted based on the independent t-test	

The use of e-modules is positively associated with increased student comprehension and learning efficacy at school and at home, both of which influence student learning outcomes (Afriani et al., 2022). The percentage of data gathered from all aspects of the reviewer by material experts is 84%, and the percentage of data obtained by material experts 2 is 78.66%. This percentage is included in the acceptable category, indicating that the content of the electronic module is applicable for educational purposes (Afiyanti, 2016). There is a need for electronic modules using the Canva application because visual learning media using Canva has several advantages, including: (1) having a variety of attractive graphic designs, animations, templates, and page numbers; (2) being able to design learning media anytime and anywhere without needing a laptop, but also using a mobile phone; and (3) on Canva Media, the results that we have made can be downloaded in various formats, both in pdf and jpg form (Analicia & Yogica, 2021).

Questions for Practice on Vocational Subjects

In response to the eighth questionnaire question, which inquired about the need for practice questions in each basic competency vocational subject, 11 out of 11 respondents indicated that practice questions were required for each basic competency in electronic module learning media. This activity is educational because it is not only concerned with imparting knowledge, but also with personality development and the formulation of student values. It is believed that the intensity of the exercise influences student learning outcomes (Rofiah & Bahtiar, 2022).

Discussion

This study focuses on the necessity of producing a product, and the participants are teachers of productive subjects at vocational high schools (SMK). Based on the results of a questionnaire distributed to eleven teaching staff, reveals that all teaching staff use textbooks as learning media. Textbooks serve an essential purpose and position in school-based learning activities.

Additionally, an appropriate learning strategy and method should be employed (Irawan, 2017). On the teacher questionnaire, there were two categories of responses: nine teacher members who had access to learning media in addition to textbooks and one faculty member who did not.

The seventh question on the questionnaire addressed the need for learning media in the form of electronic modules in vocational subjects so that students can more easily assimilate the material, find it engaging, and have access to it at any time. Eleven members of the teaching staff responded that they required electronic modules as learning media in order to teach vocational subjects to students. E-module learning is quite engaging, enjoyable, and user-friendly for students. Students can become more autonomous and accelerate their learning with e-modules, but they still require teacher guidance to better comprehend phenomena and language problems in the module's questions (Delima et al., 2021). The percentage of data collected by material experts from all aspects of the reviewer is 84%, while the percentage of data obtained by material experts 2 is 78.66%.

There was a need for digital modules built with the Canva app because 1) it offers a wide selection of visually appealing graphic designs, animations, templates, and page numbers; 2) it can be used in place of a laptop or desktop computer or even on the go with a mobile phone; and 3) the results that we have created can be downloaded in a number of different formats from Canva Media.

Conclusion

Referring to research data in the form of surveys or the distribution of questionnaires to a total of 11 teaching staff in vocational high schools in the districts/cities of Serang and Cilegon demonstrates the need for learning materials other than textbooks to convey information to vocational high school students. Students require learning materials that are simple to comprehend and fascinating. It is anticipated that the use of learning media in the form of electronic modules will improve student learning outcomes because one of these learning media is an engaging electronic module that can be accessed anywhere and at any time and contains practice questions for personality development and value formation in students

Acknowledgments

The authors would like to thank the supervisors, teachers and students of automotive vocational schools in the Serang and Cilegon areas, who have helped to obtain research data.

Author Contributions

Hendi Firdaus, Ade Holisoh, Henni Setiani: writing-original draft preparation, result, discussion, methodology, conclusion; Lukman Nulhakim and Yayat Ruhiat: analysis, proofreading, review, and editing.

Funding

This research is funded independently and the campus research program

Conflicts of Interest

The authors declare that there is no conflict of interest regarding the publication of this paper.

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