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Impact of Canva-Based E-Modules on Learning Motivation, Critical Thinking, and Creativity at SMKN Cerme

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Abstract

Learning media must be able to comprehensively measure students' competencies according to established standards. This study aims to determine the effect of Canva-based learning e-modules on learning motivation, critical thinking skills, and creativity of students. This study uses a quantitative approach with survey and test methods, using primary data on the population of SMKN 1 Cerme. The sample was taken using a purposive sampling technique, involving 105 students from 3 classes of the Electrical Power Installation Engineering (TITL) competency. Data analysis and hypothesis testing used the Structural Equation Model – Partial Least Square (SEM-PLS) method. The results showed that the learning e-module had a positive and significant effect on students' critical thinking skills, creativity, and learning motivation. The conclusion of this study is that the Canva-based learning e-module influences students' learning motivation, critical thinking skills, and creativity. The implications of the analysis results suggest that teachers can view attractive and innovative learning media such as Canva-based learning e-modules as tools to enhance students' learning motivation, critical thinking, and creativity.

Keywords: learning media, e-module, learning motivation, critical thinking, creativity.

Abstrak

Media pembelajaran harus mampu mengukur kompetensi peserta didik secara komprehensif sesuai dengan standar yang telah ditetapkan. Penelitian ini bertujuan untuk mengetahui pengaruh e-modul pembelajaran berbasis Canva terhadap motivasi belajar, kemampuan berpikir kritis, dan kreativitas peserta didik. Penelitian ini menggunakan pendekatan kuantitatif dengan metode survei dan tes, menggunakan data primer pada populasi SMKN 1 Cerme. Sampel diambil menggunakan teknik purposive sampling, dengan melibatkan 105 siswa dari 3 kelas kompetensi keahlian Teknik Instalasi Tenaga Listrik (TITL). Analisis data dan pengujian hipotesis menggunakan metode Structural Equation Model – Partial Least Square (SEM-PLS). Hasil penelitian menunjukkan bahwa e-modul pembelajaran berpengaruh positif dan signifikan terhadap kemampuan berpikir kritis, kreativitas, dan motivasi belajar siswa. Kesimpulan penelitian ini adalah e-modul pembelajaran berbasis Canva memiliki pengaruh terhadap motivasi belajar, kemampuan berpikir kritis, dan kreativitas peserta didik. Implikasi hasil analisis menunjukkan bahwa guru dapat memandang media pembelajaran yang menarik dan inovatif seperti e-modul pembelajaran berbasis Canva sebagai alat untuk meningkatkan motivasi belajar, berpikir kritis, dan kreativitas peserta didik.

Kata kunci: media pembelajaran, e-modul, motivasi belajar, berpikir kritis, kreativitas.

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INTRODUCTION

In this era of learning with rapidly developing technology, the world of education requires learning that innovates as an idea, product, method, and so on that perceived as something new to encourage better change (Marisa, 2021).

The use of learning media is one way to support this. Learning media is anything that can be used to distribute messages to students in the learning process online or offline (Teni, 2018). Learning media will motivate students to learn, write, speak, so that the imagination of students will be awakened (Tafoao, 2018)

Interesting learning media can be a stimulus for students in the learning process. One of the technological developments as a learning media today is the emergence of the Canva application. The canva application is an online design application in which there are various poster designs, graphics, brochures, presentations, logos, videos, book covers, and so on. The canva application can also be connected to the social media that we have.

Interesting media and teaching materials can be made with the designs in the Canva application. Teachers and students can be creative to create interesting work that can be displayed as learning media in the classroom and outside the classroom. This canva application can be an alternative learning media that can be used to increase student learning motivation (Hapsari, 2021).

Based on the need assessment conducted by researchers at SMK Negeri 1 Cerme on February 22, 2024, researchers obtained some information. The number of students for Phase F of the Electric Power Installation Engineering (TITL) competency 105 students consisting of 35 students for TITL 1 class, 36 students for TITL 2 class and 34 students for TITL 3 class.

The curriculum used in this TITL skill competency is the independent curriculum. In the learning activities of this TITL skill competency, educators apply a project-based leraning (PjBL) learning model in which there are activities that must create meaningful work through activities that encourage students to show creativity. This PjBL activity is usually carried out when students carry out Electrical Lighting Installation practice activities.

Then educators in the TITL expertise competency of SMK Negeri 1 Cerme also apply the Problem Based Learning learning model which focuses on students to be able to emphasize on the process of thinking critically and analytically to search and find answers to a given problem.

The obstacles in the learning process at SMK Negeri 1 Cerme, especially phase F students in the competency of Electrical Power Installation Engineering expertise, are the different characteristics of students where students' understanding when educators explain electrical lighting installation material is that some immediately understand and some need repeated explanations to understand the electrical lighting installation material, so that the critical thinking ability and creativity of students are different, based on the results of the need assessment that has been carried out by researchers at SMKN 1 Cerme shows that more than 50% of students have not been able to solve or find problems that have been given by the teacher, thus making students' enthusiasm for learning decrease and making students focus more on cellphones that are used to play games with their friends. This makes students not have good learning motivation. In the competency of Phase F Electrical Power Installation Engineering expertise in electrical lighting installation subjects, students are also not equipped with learning modules or books that can be used for reading materials as learning media materials.

Based on the problems that have been described, the right learning media is needed to increase the enthusiasm for learning, critical thinking skills, and creativity of students using effective media in helping students understand Electrical Lighting Installation material. Canva-based e-module learning media can be a leading choice in order to become reading material or learning media facilities for students that can be accessed anywhere

with an attractive design so that it does not bore and become fun learning to increase learning motivation, critical thinking skills and student creativity.

Based on the context described above, the researcher will conduct a study with the title "The Effect of E-Module Based on Canva to Increase Learning Motivation, Critical Thinking and Creativity of Learners at SMKN 1 Cerme".

The learning media used during the learning process is a canva-based e-module for Phase F ITTL which emphasizes cognitive learning with the Project Based Learning (PJBL) learning model. This learning module contains teaching material for Internet of Things (IoT)-based electrical lighting installations with worksheets. Project-based learning is expected to influence creative thinking skills and improve student learning outcomes. An open mind will find new things and ideas by paying attention to the surrounding environment.

METHODS

The research method used in this research is quantitative, basically the quantitative approach uses numbers as a measure of data, and uses statistical descriptions of relationships or explanations. The definition of quantitative research methods is as a research method based on the philosophy of positivism, used to research on certain populations or samples, data collection using research instruments, data analysis is quantitative statistics with the aim of testing predetermined hypotheses (Sugiyono, 2018).

The type of research used in this study is a quasi-experiment. The quasi-experimental method is a type of research that in its implementation does not use random assignment but by using existing groups. The use of this quasi-experimental method is based on the consideration that in the implementation of this research learning takes place naturally and students do not feel experimented, so that this situation is expected to contribute to the level of validity of the research. Researchers used the One Group Pretest-Posttest Design research design. One Group Pretest-Posttest Design can be described as shown below

Figure 1. One Group Pretest-Posttest Design

Description:

O_1 : Pretest score / before treatment
X : Implementation of canva-based e-modules interesting and innovative
O_2 : Posttest score / after treatment

This research was conducted at SMK Negeri 1 Cerme, Gresik, East Java. The time of this research was carried out even semester starting from February 2024 to with July 2024. The population in this study were all students of the Electricity Engineering competency program expertise in Electrical Power Installation Engineering at SMK Negeri 1 Cerme which amounted to 316 students. 105 students in class X, 105 students in class XI, and 106 students in class XII. Researchers took samples with purposive sampling technique. According to Sugiyono (2019: 129) Purposive sampling is a technique of taking data sources by determining samples with certain considerations. The total number of samples in this study were students in the class XI Electric Power Installation Engineering competency totaling 105, consisting of 35 students in class XI TITL 1, 36 students for class XI TITL 2 and 34 students in class XI TITL 3.

Data collection technique is the most strategic step in research, because the main purpose of research is to get data. The data collection techniques used in this study include interviews, questionnaires and tests.

Interviews are conducted to obtain oral information with the aim of obtaining data that can explain research problems. So that the problem can be known before the research is carried out and used as a background, the researcher conducts an interview

to explore related information at SMK Negeri 1 Cerme, especially in the Electrical Power Installation Engineering (TITL) expertise program. In addition, this activity also aims to find out what obstacles are currently occurring in the learning process at school. The method used when conducting interviews must be systematic and complete. As a source of information, the researcher made the head of the competency expertise in Electrical Power Installation Engineering (TITL) as a resource person.

Questionnaires are used to collect which will later be processed and analyzed. In this study, validation of material and media experts e- canva-based modules, product trials and creativity data were taken using data collection techniques with questionnaire methods.

After being given treatment (e-module based on Canva) in the experimental class, a post test was held to test the difference with the control class. According to Arikunto (2020), a test is a series of questions or exercises and other tools used to measure skills, intelligence knowledge, abilities or talents possessed by individuals or groups. In this study, the tool used for the critical thinking test tool was a multiple choice question test, while for the creativity test, the jobsheet for the electrical lighting installation trainer practice.

The method used in data analysis and hypothesis testing in this study is to use the Structural Equation Model - Partial Least Square (SEM-PLS) method. Data analysis was carried out using the Partial Least Square (PLS) method using SmartPLS software. SEM has a higher level of flexibility in research that connects theory and data, and is able to conduct path analysis with latent variables so that it is often used by researchers who focus on social science. Partial Least Square (PLS) is a fairly powerful analysis method because it is not based on many assumptions. Data also does not have to be multivariate normal distribution (indicators with categorical, ordinal, interval to ratio scales can be used in the same model), the sample does not have to be large (Gozali, 2012).

Abdillah and Hartono (2014) suggest that the large use of PLS-SEM can be used for small sample sizes, is not based on various assumptions, and can be used on data that experience problems such as non-normally distributed data, multicollinearity problems and autocorrelation problems.

RESULTS AND DISCUSSION

In this study, the data analysis used was PLS-SEM. PLS-SEM aims to test the predictive relationship between contributions by seeing if there is a relationship or influence between these constructs. There are two stages carried out in the PLS-SEM analysis, namely the measurement model and structural model stages. In this measurement model test, the validity and reliability will be tested.

The last stage is the structural model, which is to test the relationship between variables. In the structural model, the relationship between constructs is tested using path analysis. This test is intended to evaluate the significance of the relationship between the measured variables and test the related hypotheses.

The convergent validity test aims to see the validity between items and their constructs or variables. The convergent validity test is evaluated by looking at the loading factor value. A good loading factor value is more than 0.70. A loading factor value of 0.50 to 0.60 can be considered sufficient for convergent validity requirements. Below is presented the *outer loading* value of the learning e-module variable, learning motivation, critical thinking and creativity

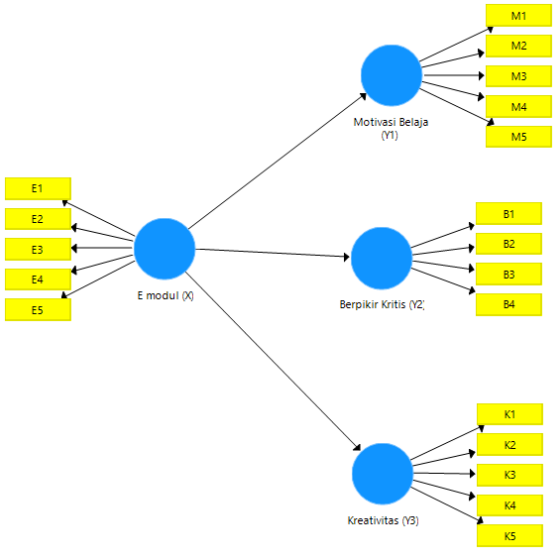

Figure 2. Proposed Structural Model

Description

E = Learning e-module indicator
M = Learning motivation indicator
B = Critical thinking indicator
K = Creativity indicator
E1 = *Self instruction*
E2 = *Self contained*
E3 = *Stand alone*
E4 = *Adaptive*
E5 = *User friendly*
M1 = Perseverance in learning
M2 = Tenacious in facing difficulties
M3 = Interest and sharpness of attention in learning
M4 = Achievement in learning
M5 = Independent in learning
B1 = Interpretation
B2 = Analyze
B3 = Evaluation
B4 = Inference
K1 = *Fluency*
K2 = *Flexibility*
K3 = *Originally*
K4 = *Elaboration*
K5 = *Harmony*

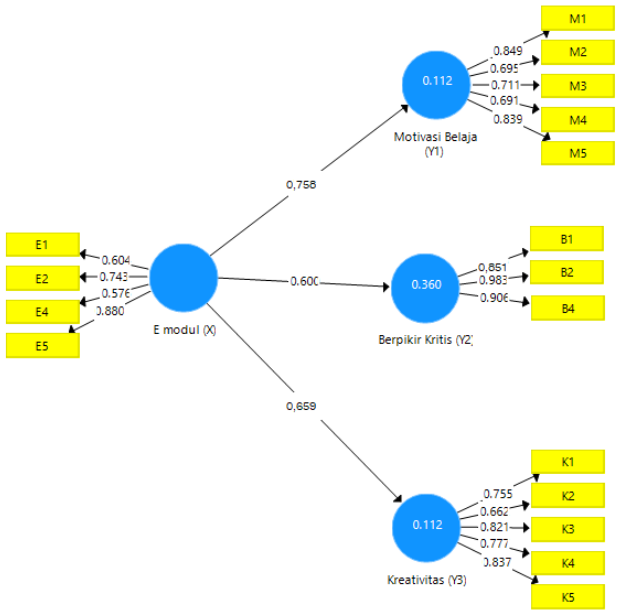

Figure 3. Measurement Model Evaluation Results (Outer Model)

. **Table 1. Outer Loading Values**

	Critical Thinking (Y2)	E module (X)	Creativity (Y3)	Learning Motivation (Y1)
B1	**0,851**			
B2	**0,983**			
B4	**0,906**			
E2		**0,604**		
E3		**0,743**		
E4		**0,576**		
E5		**0,880**		
K1			**0,755**	
K2			**0,662**	
K3			**0,821**	
K4			**0,777**	
K5			**0,837**	
M1				**0,849**
M2				**0,695**
M3				**0,711**
M4				**0,691**
M5				**0,839**

Based on table 1 above, it can be seen that all indicators have an *outer loading* value of more than 0.5. This indicates that each variable has been able to be explained by its indicators and meets the requirements of *convergent validity*.

Reliability test is used to measure the reliability of the items used in measuring constructs. The reliability test uses *Cronbach alpha* and *composite reliability* measurements. A good *Cronbach alpha* value is> 0.70 and a good *composite reliability* value is> 0.70 (Joseph F. Hair, 2022).

Table 2. Cronbach Alpha and Composite Reliability Values

	Cronbach's Alpha	*Composite Reliability*
Critical Thinking (Y2)	**0,912**	**0,873**
E module (X)	**0,902**	**0,895**
Creativity (Y3)	**0,895**	**0,922**
Learning Motivation (Y1)	**0,736**	**0,823**

Based on the table above, it can be seen that all indicators have a *Cronbach alpha* value and *composite reliability of* more than 0.70. So it can be concluded that the variable items of learning e-modules, learning motivation, critical thinking and creativity have high *reliability* so that they can be declared reliable.

Furthermore, hypothesis testing is carried out by looking at the *original sample estimates* (O) value to determine the direction of the relationship between variables, as well as the *t-statistic* (T), and *p-values* (P) to determine the significance level of the relationship. An *original sample* value close to +1 indicates a positive relationship, while a value close to -1 indicates a negative relationship. A t-statistic value greater than 1.96 or p-values smaller than the significance level (<0.05) indicates that a relationship between variables is significant. The following are the results of the *bootstrapping path coefficients* test.

Table 3. Value of Path Coefficients

	Original Sample (O)	T Statistics (STDEV)	P Values
E module (X) -> Critical Thinking (Y2)	0,619	9,715	**0,000**
E module (X) -> Creativity (Y3)	0,383	5,063	**0,000**
E module (X) -> Learning Motivation (Y1)	0,419	5,021	**0,000**

The coefficient of E-module on critical thinking is 0.619 (meaning the effect is positive)
P value of E-module on critical thinking is 0.000 <0.05 (meaning significant)
T count of E-module on critical thinking is 9.715 > T table 1.661 (sample 105, number of dependent V 3) (meaning significant).
Thus, the learning e-module has a positive and significant effect on students' critical thinking skills.
The coefficient of E-module on creativity is 0.419 (meaning the effect is positive)
P value of E-module on creativity is 0.000 <0.05 (meaning significant)
T count of E-module on creativity is 5.021 > T table 1.661 (sample 105, number of dependent V 3) (meaning significant)
Thus, the learning e-module has a positive and significant effect on students' creativity ability.
E-module coefficient on learning motivation is 0.383 (meaning the effect is positive)
The *p value of* E-module on learning motivation is 0.000 <0.05 (meaning significant).
T count of E-module on learning motivation is 5.063 > T table 1.661 (sample 105, number of dependent V 3) (meaning significant).
Thus, the learning e-module has a positive and significant effect on students' learning motivation ability.

CONCLUSIONS AND SUGGESTIONS

Based on the research and data analysis that has been done by researchers, it can be concluded that the e-learning module has a positive and significant effect on students' learning motivation ability. This is evidenced by the value of the E-module coefficient respectively for critical thinking, creativity and learning motivation is 0.619; 0.419; and 0.383 which means a positive effect. So in accordance with the results of the research that the researchers have done, the researchers will submit the following suggestions: To improve the learning outcomes of students of SMKN 1 Cerme, it is expected that teaching teachers can use learning methods or approaches that are in accordance with the material to be given to students of SMKN 1 Cerme so that a conducive learning atmosphere can be created, and be able to significantly improve learning outcomes. maximum. The alternative learning approach that the author proposes is the Project-based learning model because this learning model makes the learning process less saturated and can create a pleasant learning atmosphere in the learning process. To improve the learning outcomes of SMKN 1 Cerme students, it is expected that SMKN 1 Cerme students can be more active in participating in the learning process in class and better understand the material provided by the teacher and ask questions that may not be understood so as to improve learning outcomes. To improve the learning outcomes of students of SMKN 1 Cerme, it is hoped that this research can provide motivation to the school to utilize several learning models in the learning process, hopefully it can be useful in improving learning outcomes. students of SMKN 1 Cerme in the learning process.

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