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Analysis of the Implementation of Project Based Learning Models in Improving Students' Digital Literacy Through Digital Content Creation Training

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Abstract

This study aims to analyze the implementation of the project-based learning model in improving students' digital literacy through training in digital content creation. This type of research is survey research. The study was conducted in October 2022. The research sample was 27 students from SMAN 3 Bengkulu Tengah. Sampling is done by purposive sampling technique. The research instrument used was a closed questionnaire consisting of 18 positive statementswhich was developed in the form of a modified Likert Scale with 4 answer choices, namely strongly agree, agree, disagree and strongly disagree.The data analysis technique used is descriptive statistical analysis. The results showed that the implementation of the project-based learning model through digital content creation training activities carried out at SMAN 3 Bengkulu Tengah was able to add insight and skills, especially from practitioners of digital content creation.

Keywords: *digital content, digital literacy, project-based learning, training*

A. Introduction

Constructivism experts view that meaningful learning is learning that can make students find their own concepts. The teacher's role is a facilitator in the process of finding the concept. Concepts are tools used by humans to organize unlimited impressions using the senses. When students are able to build their own concepts, the teaching materials provided will be understood by students [1].

Project-based learning is one type of learning that organizes students to build their knowledge independently through investigation and discussion to solve problems in order to achieve the planned targets [2]–[4]. According to Trianto (2011) in [5] Project-based learning models have enormous potential to make learning experiences more interesting and useful for students. Project-based learning is an innovative approach to learning that offers a variety of strategies that refer to student learning success in the 21st century. In project-based learning, students determine their own collaborative learning process, conduct research and create creative projects that reflect their existing knowledge (Dewi, 2015; Noor et al., 2017; Wulandari, 2016). The final result in learning is in the form of a product which is the result of student group work [9], [10].

According to Thomas in [11] There are five criteria for project-based learning, namely: centrality, focusing on questions or problems, constructive investigation or design, student autonomy, and realism. This means that learning is centered on students as subjects who must master the material through questions that require proof, investigation and analysis.

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Figure 1. Project Based Learning Criteria

The stages in the project-based learning process or project-based learning are: 1) Providing information on the project to be worked on. 2) Determine the time and duration of the project. 3) Form groups. 4) Provide an overview of the project work steps. 5) Assign groups to start activities. 6) Assign for each project to. 7) Presenting in front of the class. 8) Draw conclusions[12]. The advantages of this learning model are (a) foster active participation of students during the learning process, (b) can develop mastery of the material and students' creativity in solving problems, (c) increase students' willingness to carry out creative action plans that have been made in groups, (d) train students can work together in group work (Wulandari et al., 2019).

In project-based learning, the product which is the end result of the learning process can be packaged in various types and forms, one of which is in the form of digital content such as video. In the perspective of Society 5.0, content is one of the elements that plays an important role in media technology, especially digital media [14]. Digital content can be of two types: i) items that are created and exist primarily in machine-readable material; and ii) converted from traditional formats (e.g., printed text, and recorded pamphlets, manuscripts, motion pictures and sound)[15].

The creation of digital content by students is closely related to efforts to increase students' digital literacy. Digital literacy is the ability to understand and use information from various digital sources, and the ability to use technology and information from digital devices effectively and efficiently in various contexts, such as academic, career, and everyday life [16]. While UNESCO in [17]views digital literacy as a modern life skill that needs to be mastered. Douglas AJ Belshaw in his thesis Whatis 'Digital Literacy'? (2011:206) in[18]said that there are eight essential elements for developing digital literacy, which are as follows:

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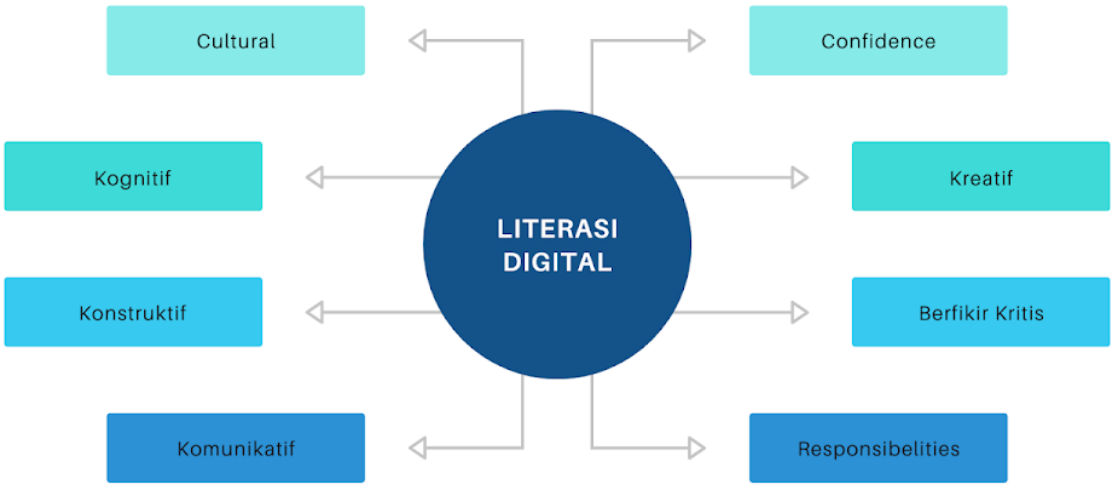

Figure 2. Essential Elements for Developing Digital Literacy

Source: www.teknokreatipreneur.com

1. Cultural, namely understanding the various contexts of users of the digital world; 2. Cognitive, namely the power of thinking in assessing content; 3. Constructive, namely the creation of something that is expert and actual; 4. Communicative, namely understanding the performance of networks and communications in the digital world; 5. Responsible self-confidence; 6. Creative, doing new things in new ways; 7. Critical in addressing content; and digital literacy as a life skill; and 8. Be socially responsible.

Based on the description above, this research will be conductedanalysis of the implementation of project based learning learning models in improving students' digital literacy through training in digital content creation.

B. Research Methods

This type of research is survey research. The study was conducted in October 2022. The research sample was 27 students from SMAN 3 Bengkulu Tengah. Sampling is done by purposive sampling technique. The research instrument used was a closed questionnaire consisting of 18 positive statementswhich was developed in the form of a modified Likert Scale with 4 answer choices, namely strongly agree with a score of 4, agree with a score of 3, disagree with a score of 2 and strongly disagree with a score of 1.The data analysis technique used is descriptive statistical analysis.

Table 1. Likert Scale Calculation

Evaluation	Scale Value
Strongly agree	4
Agree	3
Don't agree	2
Strongly Disagree	1

The questionnaire was tested for validity and reliability using SPSS with the following conditions: Valid: if rcount is greater than the value of rtable ($r_{count} > r_{table}$); Invalid : if rcount is less than rtable value ($r_{count} < r_{table}$); Reliable if Cronbach's alpha value > 0.60; and Unreliable if Cronbach's alpha value < 0.60 [19].

C. Results and Discussion

The research was conducted by distributing questionnaires to 27 students of SMAN 3 Bengkulu Tengah who took part in the trainingdigital content creation. The data obtained first is used to test validity and reliability of the instrument used. The results can be seen in the following table.

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Table 2. Instrument Validity Test Results

Item Number	r Count	r Table	Information
1.	0.843544	0.3809	Valid
2.	0.67252		Valid
3.	0.742172		Valid
4.	0.783966		Valid
5.	0.507193		Valid
6.	0.740939		Valid
7.	0.732181		Valid
8.	0.586046		Valid
9.	0.611819		Valid
10.	0.680413		Valid
11.	0.773303		Valid
12.	0.584562		Valid
13.	0.675477		Valid
14.	0.691424		Valid
15.	0.742504		Valid
16.	0.615509		Valid
17.	0.671457		Valid
18.	0.70239		Valid

Table 2 shows that all of the items used to collect data in this study are valid because the rcount value is greater than rtable, meaning that the instrument can be used to measure what should be measured.

Table 3. Instrument Reliability Test Results

Cronbach's Alpha	N of Items
.933	18

Table 3 shows that the instrument used is reliable because it has a Cronbach Alpha value greater than 0.6. This means that the instrument will show the same results if used in research activities with the same subject even though the implementation is in different times and conditions.

After testing the validity and reliability, the data that has been collected is used to analyze student responses to theimplementation of project based learning learning model in improving students' digital literacy through training on digital content creation. The results can be seen in the following table.

Table 4. Results of Filling Out Questionnaires by Respondents

Item Number	Number of Respondents			
	Strongly agree	Agree	Don't agree	Strongly Disagree
1	14	13	0	0
2	14	12	1	0
3	22	5	0	0

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Item Number	Number of Respondents			
	Strongly agree	Agree	Don't agree	Strongly Disagree
4	15	12	0	0
5	21	6	0	0
6	16	11	0	0
7	15	12	0	0
8	14	13	0	0
9	24	3	0	0
10	18	8	1	0
11	18	9	0	0
12	21	6	0	0
13	16	11	0	0
14	18	9	0	0
15	19	8	0	0
16	21	6	0	0
17	20	7	0	0
18	19	8	0	0

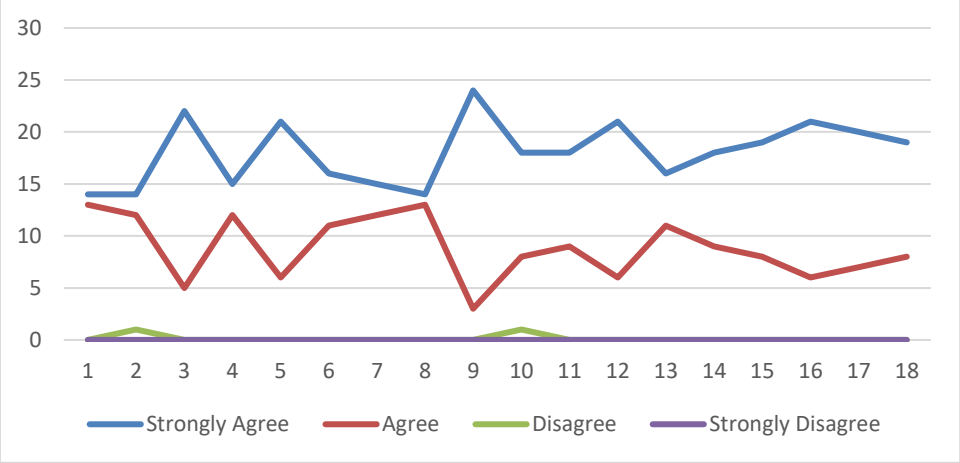

Figure 3. Graph of the Results of Filling Out Questionnaires by Respondents

The tables and figures above show that the students gave a good response to the training activities that have been carried out. This is evidenced by the number of students who chose the answers agree and strongly agree with the positive statements presented in the questionnaire.

Students agreed that the material presented in the training activities was easy to understand, the material presented was clear and in accordance with the training objectives, namely to train students in producing video content. The method of delivering the material is easy to understand because it uses a method that is in accordance with the times. Submission of material is carried out in a structured manner. For practical activities, students stated that practical activities were easy to follow because they were well guided. From this training, respondents stated that they gained a lot of new knowledge including knowledge of the concept of video content, knowledge of video content editing techniques, knowledge of video production stages, starting from pre-production, production and post-production stages, knowledge of the equipment used/ needed to produce videos, knowledge of how to choose the aspect ratio of videos, knowledge of the types of shots in video, and knowledge of the types of camera movements when editing videos. So that this training activity encourages respondents to be more creative in producing video content. Respondents also

said that the presenters were able to provide examples of how to produce good content and they wanted this type of activity to be often given in schools to add insight and skills, especially from practitioners of digital content creation. So that this training activity encourages respondents to be more creative in producing video content. Respondents also said that the presenters were able to provide examples of how to produce good content and they wanted this type of activity to be often given in schools to add insight and skills, especially from practitioners of digital content creation. So that this training activity encourages respondents to be more creative in producing video content. Respondents also said that the presenters were able to provide examples of how to produce good content and they wanted this type of activity to be often given in schools to add insight and skills, especially from practitioners of digital content creation.

The results of filling out the questionnaire show that digital content creation training activities are one form of implementationproject-based learning model is able toadd insight and skills, especially from practitioners of digital content creation.

D. Conclusion

The implementation of the project based learning model through digital content creation training activities carried out at SMAN 3 Bengkulu Tengah is able toadd insight and skills, especially from practitioners of digital content creation.

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