

Development of Weblog for Learning Tool on Creative Product and Entrepreneurship for Tourism Vocational High School

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Abstract : This research aims to test the practicality and effectiveness of weblog for learning tool on Creative Product and Entrepreneurship for Tourism Vocational High School that have been developed using the Borg and Gall Model. The research subjects were teachers and students who used weblog in the implementation of learning in class. Data collection techniques using questionnaires and tests. The questionnaire is used to find out the practicality of the weblog while the test is for the effectiveness of the weblog being developed. The results of the practicality test of developed weblog were obtained from a questionnaire with 30 students with a result of 87% in the very practical category. The effectiveness test in the real class obtained an N-Gain value of 8.2 in the high category with 82% very effective criteria. Thus the weblog contains learning tools and textbooks on Creative Products and Entrepreneurship for Tourism Vocational High Schools that are developed to be practical and effective for use in learning activities.

Keywords: Weblog, Development, Learning Tool and Creative Product and Entrepreneurship, Effectiveness.

1. INTRODUCTION

The rapid development of digital technology has had a major impact on all lines of life, including the education sector. The rapid development of digital technology has contributed a lot to the development and progress of education in many countries. The development of digital technology and communication has greatly helped improve teaching and learning activities that are more efficient, varied and fun. The development of digital technology is usually used as a supporting media for the implementation of learning, to facilitate the delivery of learning material. For this reason, teachers must be able to combine technological advances, pedagogical abilities, and depth of mastery of the content of learning materials into a single unit called Technology Pedagogy Content Knowledge (TPACK).

Technological developments towards digitization have been utilized in learning activities. Digital technology is used to facilitate the implementation of learning activities, which are adapted to the learning material to be studied. The use of digital technology is mandatory in the implementation of 21st century learning. The use of digital technology in

learning can be realized in various forms, one of which is by using weblog. [1] Weblog can be used as a supporting media for the implementation of learning to facilitate the transfer of knowledge from teachers to students. Teachers use the development of digital technology with applications on the internet related to online learning activities so that students can learn anytime and anywhere. Weblog with various features can be used by teachers for teaching and learning activities that can be accessed easily and quickly. The weblog media is in the form of a set of pages that display text data information, still or moving images, animation, sound, video and/or a combination of all of them, including those that have dynamic or static properties that create an interconnected building design, in which each part is associated with networks of page. [2]

Learning support media based on weblog helps students in teaching and learning activities. This is because the weblog media is easily accessible anywhere and anytime, which makes it easier for independent learning students to develop and add insight, learn to interact, and improve their

skills in creating. In addition, students will carry out more and more learning activities because they not only listen to the explanations of the teachers but also other activities, for example making observations and carrying them out. Weblog make it easy to find information. The growth of weblog has the function of being a media that is widely used by the public to find information because it has a practical nature.

Weblogs are a form of web application with writings that are often published sequentially or in reverse order. Website such as weblog can generally be accessed by all internet users in line with the topics sought. The word blog comes from the word weblog which was popularized in early 1998 by John Barger, who gave the word weblog to specify the term website which has a personal nature and is frequently updated all the time. Blog is a website that has a personal nature, which includes personal opinions and other matters in self-actualization and conveying it to the global community. [3] Blog is one of the effective media used in teaching and learning activities in schools because through blog, teachers can transfer material in the form of presentations, animations, videos, texts, online learning, discussions and exams in the same container. The use of weblog media provides students with maximum opportunities through the use of media in learning activities to provide student learning outcomes that experience development. Weblog is a media that have a combined nature through media elements such as multimedia, animation, images, and text that accommodate all elements.[4]

Weblogs can be used to contain all learning tools that will be used in implementing learning activities at school and outside of school. Learning tools available in weblog will facilitate access and use, because the availability of good learning tools will have an impact on the learning process, because they are used as a guide in implementing learning activities in class, laboratory or learning outside the classroom. [5] The completeness of learning tools helps teachers and students in the process of seeking knowledge, because learning tools are the entire design of the implementation of learning that will be carried out, both lesson plans, teaching materials, learning media, student worksheets and also assessment instruments. That is why learning tools are referred to as planning which is a systematic process for deciding what and how students should learn. That is why Ganefri, et al said that the learning tools that were prepared would clearly show the scenario/illustration of the learning activities that would take place in class. Utilization of learning tools weblog for learning activities can be used at all levels of education, including at the secondary school level, both vocational and senior high schools. [6]

Vocational High School is a form of formal education unit that organizes vocational education at the secondary

education level that prepares students to become middle workforce according to their majors, especially to work in their fields. For students, they can continue their education to the college level, but are more focused on becoming a ready-to-use middle workforce. Input for Vocational High Schools are students after completing education at the Junior High School level or equivalent. The organizers of vocational education are divided into two, which can be carried out by the government with public schools and private parties. There are several majors that are usually of interest to prospective Vocational High School students, including the Department of Multimedia, Animation, Administration, Accounting, Pharmacy, Tourism, Shipping, Mechanical Engineering, Catering, Electrical and so on.

Tourism Vocational High School as one of the vocational schools with a large number of enthusiasts. The Tourism Vocational High School is one of the majors with a lot of enthusiasts, as can be seen from the addition of the opening of tourism departments and the increase in the number of students admitted each year. This is also motivated by the large market opportunity in the tourism industry which requires quite a lot of middle workforce, because tourism is big business, with millions of people who want to take advantage of their free time by traveling, medical treatment and religious trips. [7] This is in line with data from the Central Statistics Agency for the last 5 years where there has been an increase in the percentage of workers in the tourism sector to total workers, starting with 9.03% in 2015; 10.37% in 2016; 10.53% in 2017; 11.17% in 2018 to 11.83% in 2019. The tourism sector was also able to create 2.4 million new jobs and contributed 6.2 percent to Indonesia's gross domestic product (BPS, 2020).

Tourism Vocational High School graduates are expected to become middle workforce in the tourism sector, for this reason graduates must be equipped with entrepreneurial competencies. The Subject of Creative Product and Entrepreneurship is one of the subjects to support the achievement of entrepreneurial competence. The government is trying to foster entrepreneurial interest, enthusiasm and skills that will create a young entrepreneurs who graduate from the Tourism Vocational High School. This is because the government is currently focusing on policies on developing creative and reliable human resources who will act as agent of economic development as productive citizens who create jobs for themselves and for others. The government is planning various efforts to create young entrepreneurs to be able to take advantage of local potential and the development of information technology into economic resources. [8] The government's efforts are made by realizing that being an entrepreneur is not easy and instant, but is a behavior that must be developed from an early age[9].

For this reason, it is necessary to standardize learning indicators, teaching material content, learning models, evaluation instruments as outlined in PKK Textbooks and Learning Tools by strengthening a production-based mindset so that every Tourism Vocational High School student has competencies according to the needs of the industrial world. So that students have high-level thinking skills with the ability to connect, manipulate, and transform the knowledge and experience they already have to think critically and creatively in an effort to make decisions and solve problems in new situations. Learning tools used in learning activities must be able to strengthen the mindset of students to become entrepreneurs. Instilling an entrepreneurial spirit requires the growth and strengthening of the mindset, supported by training through practice to produce real products needed by the business world, both goods and services. Students are given learning experiences in contextual situations following the flow of industrial work starting from order-based planning, product implementation and evaluation/product quality control, to post-production service steps. That is why in entrepreneurship learning the process of internalizing students' values needs to be done, because the learning should not only be theory, but the practice of being an entrepreneur. [10] [11]

The research aims to test the practicality and effectiveness of weblog media containing learning tools on Creative Product and Entrepreneurship by strengthening the previously developed production-based mindset. The development of a weblog and a Textbook on Creative Product and Entrepreneurship by strengthening a production-based mindset was carried out due to the lack of textbooks on Creative Product and Entrepreneurship for Tourism Vocational High Schools. The lack of textbooks and digital-based learning tools is an obstacle for students to study business in the tourism industry, while on the other hand the potential for developing the tourism sector is quite high. [11] For the finalization of textbooks that have been developed in previous research, effectiveness tests were carried out through real learning in class with the support of weblog which contain complete learning tools developed which contain Learning Implementation Plans, learning media, student worksheets and evaluation instruments used in learning activities in school.

2. RESEARCH METHOD

Weblogs for learning tools and textbooks have previously been developed using the development model (R&D) Borg and Gall Model, [12] with the aim of developing media weblog containing learning tools on Creative Product and Entrepreneurship by strengthening a production-based mindset to increase the entrepreneurial competence of Tourism Vocational High School students. In this research, practical tests and effectiveness of the two products that had been developed previously were carried out, by applying them to direct learning activities in class.

The location of the research took place at the Department of Travel and Tourism at SMK Negeri 7 Medan. The population in this research were students of SMK 7 Travel Business Department who took the Creative Product and Entrepreneurship Subject. The research samples were in the form of two experimental classes, which were involved in the practicality test and the effectiveness test.

This research uses the development model of Borg and Gall Model to develop a learning tool weblog that starts with a preliminary study in stage one to the revision of the main field test results in the seventh stage, so that it can be used for the operational field test stage in the eighth stage with real learning activities in the experimental class for the finalization of the textbooks and learning tools developed, up to the ninth stage, namely the final product improvement. Data collection techniques used in this research were questionnaires and tests for students. Data analysis techniques with quantitative descriptive analysis techniques to process operational field test results. The effectiveness of the weblog containing learning tools and textbooks developed has been tested using the Gain Normality Test. Gain normality test is a test that can provide an overview of the increase in learning outcomes scores between before and after the application of a treatment. By comparing the scores of pre-test and post-test learning outcomes, it will be known whether the use of weblogs and textbooks is effective or not.

3. RESULT

Research on the development of textbook and learning tool on Creative Product and Entrepreneurship with the strengthening of a production-based mindset has produced Textbooks and Weblog containing Learning Tools in the form of Learning Implementation Plans, teaching materials, learning media, student worksheets and learning evaluation implementation instruments. The development of a learning tool weblog on Creative Product and Entrepreneurship for Tourism Vocational High School students follows the Borg and Gall development procedure with the ten development steps that have taken place in previous research. The previous development stages that have been carried out starting from the first to the fifth stage of the Borg and Gall research stage, and are currently being continued in the sixth to ninth stages, the results are as follows:

3.1. Initial Research and Data Information Collection

The first stage is the initial data collection in the form of preliminary studies and literature, with curriculum analysis and student analysis through Focus Group Discussions with Heads of Departments, teachers and

tourism business entrepreneurs. As a result, the textbook for Creative Products and Entrepreneurship which focus on Tourism High Schools are minimal in number and the learning tools are still manual, not digital technology-based. The learning activities have been carried out with participatory learning to produce products that are marketed in school stores and social media, but have not been oriented towards the needs of the tourism industry.

3.2. Planning of Weblog on Creative Product and Entrepreneurship for Tourism Vocational High School

The second stage is to plan learning tools weblogs according to the syllabus, annual program and semester program at school according to the Vocational High School Expertise Spectrum for the Department of Tourism in the Regulation of the Director General of Primary and Secondary Education, Ministry of Education and Culture Number: 06/D.D5/KK/2018. Learning tools were designed together with the Head of the Department and Teachers of SMK Negeri 7 Medan. The material focuses on practice, by strengthening entrepreneurial mindsets and motivational words of successful entrepreneurs and a collection of videos of North Sumatra tourist objects as tourism resources. Learning media, student worksheets and assessment instruments were prepared using a project approach to explore students' creative abilities and measure needs analysis skills, product design, and marketing. Learning tools explore higher-order thinking skills in problem solving with the direction of reasoning, critical and creative thinking, innovating, communicating and collaborating uploaded to weblog and can be accessed easily by teachers and students.

3.3. Development of Weblog on Creative Product and Entrepreneurship

The third stage is the learning tools that have been developed are published in a weblog to facilitate teacher and student access to learning materials, so that students can access learning materials anytime and anywhere containing Learning Implementation Plans, teaching materials, learning media, student worksheets along with teaching modules . The weblog is also equipped with a pretest, post test and answer key to measure cognitive aspects. The results of the developed Weblog include the following link <https://pkkkmerdeka2022.blogspot.com/> and the developed textbook in the form of an e-book at the Digital Repository of State University of Medan with the link <http://digilib.unimed.ac.id/id/eprint/49096>.

3.4. Initial Field Trial

Weblog have been tested in the initial field, with validation from material experts, media experts and linguists. The results of the validation of the material experts

concluded that learning tool weblog were very feasible with an average of 90% with details of the suitability of the contents of the weblog with the curriculum with a value of 94%, alignment of all learning tools with a value of 89%, and completeness of the content with a value of 87%. For validation, media experts concluded that the weblog in its presentation was very feasible, with an average of 90%. With details of presentation it is very feasible with a value of 90%, with details of the weblog appearance it is feasible with a value of 89% and for ease of use it is in the very feasible category with a value of 91%. The validation results of linguists concluded that weblogs were very feasible with an average of 90%, with very decent readability details with a score of 90%, ease of understanding language was very feasible with a score of 91%, category writing was very feasible with a score of 91%.

3.5. Initial Product Improvement

The fifth stage, namely improving the contents of the blog is carried out based on expert validator input. The initial improvement was in the form of adding a tourist object video link as an illustration of potential, motivational words to build students' entrepreneurial mindset, more detailed features to focus on the material being sought. Strengthening the validator's assessment was followed by tests on three Tourism Vocational High School students with different abilities with average, above average and below average abilities to assess readability, appearance, presentation of material and benefits. The results for assessing the aspects of readability, ease of use and display obtained an average result of 83.99% in the feasible category.

3.6. Main Field Test

The sixth stage, namely in the form of a main field trial to find out the practicality of using a weblog containing learning tools with 30 Tourism Vocational High School students in learning activities using the products produced.

Table 1: Result of Main Field Test

Student	Gain Score	Ideal Score	Empirical Score	Criteria
1	65	75	0,87	Very practical
2	64	75	0,85	Practical
3	65	75	0,87	Very practical
4	63	75	0,84	Practical
5	63	75	0,84	Practical
6	62	75	0,83	Practical
7	65	75	0,87	Very practical

8	67	75	0,89	Very practical
9	68	75	0,91	Very practical
10	70	75	0,93	Very practical
11	63	75	0,84	Practical
12	62	75	0,83	Practical
13	67	75	0,89	Very practical
14	64	75	0,84	Practical
15	68	75	0,91	Very practical
16	65	75	0,85	Practical
17	66	75	0,88	Very practical
18	65	75	0,87	Very practical
19	62	75	0,83	Practical
20	64	75	0,85	Practical
21	68	75	0,91	Very practical
22	64	75	0,85	Practical
23	66	75	0,88	Very practical
24	67	75	0,89	Very practical
25	65	75	0,87	Very practical
26	63	75	0,84	Practical
27	65	75	0,87	Very practical
28	64	75	0,85	Practical
29	66	75	0,88	Very practical
30	65	75	0,87	Very practical
Average			0,87	Very practical

From the results of the main field test for assessing the aspects of readability, ease of use and appearance, an average result of 87% is obtained in the very practical category, meaning that weblog containing practical learning tools and textbooks are used in learning activities.

3.7. Product Revision After Main Field Test

The seventh stage, namely the revision of the learning tool weblog product after the main field trials were carried out with input from students. The fix is in a typing error. The results of the data analysis show that the weblog for learning tool and textbook that developed are feasible and practical to use. Weblog are easy to use, coloring, displaying letters, symbols, pictures, YouTube video links are interesting and don't interfere with the content, look coherent, and help

teachers and students understand the learning material on the weblog.

3.8. Operational Field Test

The eighth stage of operational field testing was carried out in classroom learning activities, using textbooks and learning tools weblog to determine the effectiveness of all the products developed. To find out the effectiveness of the product, a pre-test and post-test were carried out in the experimental class. The pre-test and post-test results were processed using the gain normality test (N-Gain). The results of the effectiveness test were carried out with the following results:

Table 2: Effectiveness Test

No. Student	Pre-Test	Post-Test	N-gain	Criteria
1	15	85	0,82	High
2	5	90	0,89	High
3	10	85	0,83	High
4	25	85	0,80	High
5	35	75	0,62	Medium
6	30	95	0,93	High
7	15	90	0,88	High
8	5	95	0,95	High
9	20	90	0,88	High
10	10	90	0,89	High
11	40	80	0,67	Medium
12	10	90	0,89	High
13	5	80	0,79	High
14	15	85	0,82	High
15	30	90	0,86	High
16	5	85	0,84	High
17	5	75	0,74	Medium
18	15	90	0,88	High
19	5	90	0,89	High
20	5	80	0,79	High
21	10	85	0,83	High
22	15	85	0,82	High
23	15	80	0,76	High
24	5	85	0,84	High
25	25	95	0,93	High
26	10	70	0,67	Medium
27	20	80	0,75	High
28	15	85	0,82	High
29	10	70	0,67	Medium
30	10	90	0,89	High
Average	14,67	85,00	0,82	High
Minimum Value	5,00	70,00	0,62	
Maximum Value	40,00	95,00	0,95	

From the table above, it can be seen that the result of average N-gain for the experimental class with weblog and PKK textbook is 0.82 in the high category when interpreted in the N-gain effectiveness category of 82%, the experimental class is in the effective category for improving student learning outcomes. The results of the N-gain test in

classes using weblog and textbook were developed, namely 0.82, meaning that it was proven effective to apply.

3.9. Final Product Improvement

The ninth stage, namely the final product improvement is carried out as a final correction of the developed textbook and weblog and their contents, based on input on the implementation of the effectiveness test. Corrections are only for writing errors, there are no principle fixes. After the final repairs, both products have been arranged for Intellectual Property Rights and ISBNs for Textbook and Weblog for learning tool on Creative Product and Entrepreneurship for Tourism Vocational High School to be able to enter the final stage, namely Dissemination and Implementation.

4. CONCLUSION

1. The results of field tests and initial product improvements concluded that the weblog for learning tool on Creative Product and Entrepreneurship that developed is suitable for use in the implementation for learning on Creative Product and Entrepreneurship for Tourism High School students, validation of material experts in the very feasible category with an average of 90%, media experts in the feasible category with an average of 89%, linguists with a very feasible category with an average of 90.3%. Strengthened by trials on students with achievement results of 83.99% in the feasible category.
2. The results of the main field test with learning activities in class using weblog and textbook on Creative Product and Entrepreneurship concluded that the two products developed by the weblog and textbook were very practical to use in learning activities on Creative Product and Entrepreneurship for Tourism Vocational High Schools with an average yield of 87% in the very practical category.
3. The results of operational field tests to determine the effectiveness of the weblog and textbook on Creative Product and Entrepreneurship that were developed concluded that the weblog and textbook were effectively used in learning activities with a high N-Gain result of 0.82. This means that the weblog and PKK textbook that were developed are very effectively used in classroom learning activities by 82%.

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