

# Development of Teaching Materials Based on Blended Learning on The Special Room Decoration Art Course

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**Abstract.** The aim of this research is to develop special room decoration art teaching materials based on blended learning in Culinary Education Study Program, Faculty of Engineering State University of Medan as a good learning resource and be able to function properly and to know the results of the feasibility of teaching materials developed so that it can be useful as a learning media. The design of research used in this study is R&D. This study provides treatment to research respondents who subsequently observed their effects. The treatment given is the use of teaching materials based on blended learning. This model includes six stages namely: literature study, development planning and design, development of citizens, expert validation, trials, revisions, and final products. The test subjects consisted of two learning material experts, two learning design experts, two instructional video media experts, three students for individual trials, nine students for small group tests, and fifty-eight students for field trials. Data about the quality of these development products was collected by a questionnaire. The data collected was analyzed using qualitative descriptive analysis techniques.

**Keywords;** Blended Learning, Special Room Decoration Art, Undergraduate Students of Culinary Education

## 1. Introduction

Science Technology in the education world has transformed conventional learning systems into modern learning systems, demanding to innovate in the delivery of learning. Then these challenges make changes in the learning environment and contribute to the movement of the learning process, especially in lectures. Utilization of Science Technology (Science and Technology) in the world of education becomes something that is considered important in changing education. Especially in learning systems, science and technology has changed conventional learning systems into modern learning systems that are based on information and communication technology (ICT). One of them is computer media with internet. The rapid development of ICT (information, communication and technology) has an effect on all fields including education. ICT is able to become a medium and a broad source of learning so as to enable students to learn independently without the presence of a teacher. With this media will stimulate the brain's performance so that it is more optimal and optimal, which in turn leads to E-Learning. The presence of E-Learning which then provides new innovations in the world of education by expanding the use of electronic communication media. For this reason, in the world of education, it is very much needed the help of Science Technology (IPTEK). The atmosphere

of E-Learning learning will force students to play active role in learning process, this is because E-Learning learning requires students to look for material with their own efforts and initiatives. The context of the use of information and communication technology in the world of education, it has been proven that the narrowing and fusion of the factors "space and time" which has been a determinant of the speed and success of mastering science by humans. More flexible without being bound by space and time, enriching learning material, animating the learning process, making the learning process more open, and supporting students to learn independently. The emergence of E-Learning has led to new learning media such as, commonly referred to as blended learning, Mobile learning, Web-based learning, virtual learning, internet learning, Networked learning, distance learning. The use of E-Learning as a technology also needs to be carried out a plan in order to implement effective learning, as well as improve students' learning outcomes so that learning objectives are achieved.

In an effort to improve the quality of education, institutions must be able to move all components that become subsystems in an education quality system. "The first and foremost subsystem in improving the quality of education is the teacher factor." From the above opinion, it can be concluded that good or bad quality of education is strongly influenced by educators. Therefore, educators are required to be professional, creative and innovative in improving the quality of education. Educators in this era of globalization are required to master the development of existing technology. Mastery of the development of this technology will be expected so that educators can apply it in the realm of education. By being able to master the development of technology, educators will be able to develop quality teaching and learning processes in order to improve learning outcomes better. Basically education is a process of delivering information to students where in the information there is a message to be conveyed. This information can be conveyed using learning media. In the implementation of learning, media is also one of the success factors. In this era of very rapid technological advances, there have been many media that can be used to support learning, there are print media, 3 electronic media and media that are indeed developed to facilitate learning. With a touch of information and communication technology that has given birth to the concept of E-Learning.

The role of learning media can facilitate the learning process and learning outcomes. Besides learning media are all tools and materials that can be used for educational purposes such as radio, television, books, newspapers, magazines, computers and so forth. In this case the media functions as an intermediary to deliver material. Seeing the needs of students and the demands of the times, a good learning strategy is to combine the best characteristics of learning in the classroom (face to face) and E-Learning to enhance active independent learning by students. The choice of using blended learning model is considered in realizing the learning strategy.

E-Learning is a learning model that has characteristics that can be used by anyone (everyone), anywhere (everywhere), and anytime (everytime). E-Learning is focus on the efficiency of teaching and learning process. The use of the Elearning learning model will make it easier for students to access lesson material, discuss with friends, and ask questions with the instructor whenever and wherever. Not only that, teachers can also add references to teaching materials that can be uploaded on the internet so that students can also broaden their horizons, and will greatly facilitate teachers to supervise students' mastery of material. The combination of learning models is often called Blended Learning where face-to-face teaching is combined with the use of information and communication technology. Blended Learning Learning Model has advantages to improve accessibility in learning so that the convenience will have an impact on students' ease of accessing subject matter and enactment so that it can help students improve their learning outcomes.

Thus, this research intends to develop teaching materials based on blended learning in the Art of Special Room Decoration in the Culinary Education Study Program in the hope that these teaching materials can be utilized for learning. Teaching materials in the form of modules and based on blended learning are designed to support student learning so that it is easier to understand theory, the basics of decorating arts properly, and add learning references so as to improve student learning achievement

## 2. Research Method

In this research and development model that will be developed refers to the Research and Development (R&D) of the Borg & Gall model which has the aim to develop and validate the product by planning learning in the development of the learning textbook. Research and Development (R&D) methods are research methods used to produce certain products, and test the effectiveness of those products. Furthermore, to be able to produce certain products used research that is needs analysis and to test the effectiveness of these products in order to function in the wider community, research is needed to test the effectiveness of these products.

The development model used in this study is the 3D form, namely Define, Design and Develop. This model is a research method used to develop or validate products used in education and learning. The 4D research model stands for Define, Design, Development and Disemination.

### Trial Design

The trials in this study were conducted by distributing questionnaires. Questionnaires are given to students to find out students' interest in the learning dictates developed. The questionnaire was made on a scale of 1 to 5. The guidelines and assessment criteria for interpreting (Percentage of Response criteria / scoring criteria guidelines). In this case it is seen in Table 3.1 below:

**Table 1.** The Guidelines Assessment Criteria

Percentage	Criteria	Value
81% ≤x≤ 100%	Very Good	A
61% ≤x≤ 80%	Good	B
41% ≤x≤ 60%	Enough	C
21% ≤x≤ 40%	Not Good	D
0% ≤x≤ 20%	Very Not Good	E

### **Research Location and Time**

This research was conducted at the Catering Study Program Department of Family Welfare Education (PKK) of the Faculty of Engineering, State University of Medan in VII / Odd semester students of the Catering Study Program, Academic Year 2018/2019.

### **Method of Collecting the Data**

The data to be collected is data about the need for teaching materials based on blended learning in a qualitative form. Qualitative data were collected using questionnaire sheets and documentation. Data collection techniques used in this study as follows:

- Questionnaire  
Questionnaire used to capture data on the learning needs of the dictates provided to students, to identify the needs and general objectives of learning, to capture student opinions.
- Documentation  
Documentation used as research evidence. Documentation includes things that can strengthen research statements such as photographs, correspondence and so on.

### **Technique Analysis the Data**

To analyze the data, which is about the feasibility of blended learning based learning materials, non-test techniques are used to collect product data, by validating the module design which includes the process of activities to assess the feasibility of the module before it is used as a learning material. The assessment is conducted by a validator who has been given confidence in validating the design of the teaching and learning dictates who are experts in the field of greafis design, cosmetology science, learning design, and several student groups.

## **3. Discussion Result**

The process of implementing blended learning media development is carried out in stages. The first stage in this development activity was to conduct a needs analysis at the Faculty of Engineering, Department of Family Welfare Education and conduct interviews with lecturers who took courses on August 25, 2019 then continued on September 2, 2019, doing the same thing by distributing questionnaires to 40 lecturers The Department of Family Welfare Education uses the method of defining the definition of blended learning media in a questionnaire so that respondents have an overview of the questions in the questionnaire submitted.

From the results of the questionnaire that has been distributed it shows the data that 100% of students stated that they need blended learning media to be used as a learning facility individually 91% of lecturers stated that they need blended learning media so that the learning process runs more effectively and interestingly. Data on the needs analysis is presented in Table 5.1 below:

**Table 2.** Need Analysis the Data

No	Sort of Information	Ans	Frequency			Percentage
			Lecture	Student	Total	
1	Have known or not about blended learning media through the neo LMS website	Yes	4	5	9	9.00%
		No	36	53	89	89.00%
2	Use or not use blended learning media through the neo LMS website in the learning process	Yes	5	0	5	5.00%
		No	35	58	93	93.00%
3	Requires or not require blended learning media through the neo LMS website in the learning process	Yes	36	58	94	94.00%
		No	3	0	3	3.00%

Based on the results of the needs analysis questionnaire distributed to students and lecturers, the following conclusions are obtained:

- Most of the students and lecturers (89%) stated that they were not familiar with the media of blended learning through the neo LMS website. Only a small proportion (9%) of lecturers and students stated that they knew the learning media.
- Most (88%) lecturers stated that they did not use blended learning media in the learning process and all students (100%) said they had never used the learning media.
- Most of the lecturers (91%) stated that they needed blended learning media in the learning process and all students (100%) said they needed it.

Based on the results of the needs analysis it can be concluded that the development of blended learning media through the neo LMS website is indeed very much needed by students and lecturers in the learning process. The results of an oral interview to the lecturers of decorative arts courses, stated that they needed blended learning media through the neo LMS website to support the learning process because they admitted it was difficult to get an effective teaching material media to deliver decorative art lecture material.

#### 4. Conclusion

Blended learning media on special room decoration art teaching material is very needed in the learning process. So after that the media production process will proceed to the next stage until it becomes a product that is suitable for use in the learning process.

## 5. Suggestion

For lectures, the results of this development can be used as an alternative learning media in the introduction of Central and Eastern Indonesian Food Processing to students. This product can stimulate students' enthusiasm to get involved in learning, especially when lecturers explain the subject. For the next researchers, it is expected that the next researchers can conduct research on training with educators in the development of instructional media using interactive media.

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