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DEVELOPMENT OF MANUAL EMBROIDERY MODULES AS A LEARNING MEDIA FOR EMBROIDERY COURSES IN FASHION DEPARTMENT FPP UNP

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ABSTRACT

The ability of students to understand concepts and skills in manual embroidery lectures is still low. The problems found are in the learning process tends to be teacher-centered, lack of adequate Manual Embroidery learning module. To overcome these problems it is necessary to develop the Manual Embroidery learning module in order to improve the quality of student learning in achieving the learning objectives. The purpose of this study is to describe the validity, practicality and effectiveness of modules developed in the course Embroidery course students Fashion Clothing Department IKK FPP UNP.

This research is a research and development, that it begins by analyzing the problems of manual embroidery learning, conducting literature study, designing learning module draft, developing manual embroidery learning module (conducting module validity test, doing module practical test and doing module effectiveness test).

The results showed that the manual embroidery course modules developed were in accordance with student characteristics and embroidery course curriculum. The validity of the modules assessed by the validator obtained an average of 92.27% with very valid categories. Furthermore, the test of practicality of Embroidery module by students is considered very practical (82.28%) with very practical category. The effectiveness test result of Embroidery module is considered quite effective in improving student learning outcomes where there is improvement of student learning outcomes with the score of 70 and up from 23.8% to 95.2% with very high category. It is expected that developed modules can be utilized by students so that it can help improve the quality of learning followed by students.

KEYWORDS: development, module, manual embroidery

1. INTRODUCTION

Various the efforts to improve quality of education continue to be done, one of them with renewal of the learning media. Learning media consists of various forms such as modules, Interactive CD, Video and so forth. The availability of qualified modules for learning Embroidery is very important to supporting the learning process. Qualified learning module is expected to learning students independently in accordance with their respective speed either with the guidance of lecturers or in learning independently.

The embroidery course is one of the elective courses on the concentration of Education Dress Fashion followed by students in the 6th semester with the credit is 3 sks. One of the Embroidery materials studied is embroidery with manual embroidery machines. Embroidery with manual embroidery machine is one of the embroidery techniques that lift embroidery techniques typical of West Sumatra. The

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Embroidery techniques studied include the techniques of suji caia embroidery and Kerancang embroidery. One indicator of student success in mastering embroidery skill with manual machine is with continuous training. Students are expected to align hand gestures with machine movement. This embroidery learning process will be more effective if it supported by a module that can lead students to study independently at home according to the speed of each learning.

Prastowo (2012: 106) suggests the module is a teaching material that is arranged systematically with language that is easily understood by learners according to their knowledge level and age, so that learners can learn independently and with minimum guidance from supervisor. Directorate of Education Personnel (2008: 3) suggests "The module is also called the media for self-study because it has been equipped with instructions for self-study". So the module is a printed material that can be used by students to study independently with the help of a minimum of lecturers.

A qualified learning module according to the National Education Agency (2006) should meet the following four aspects: (1) Feasibility aspects of the content, including the suitability of the material description with Standar of competence and Basic Competence, (2) the material accuracy, the material upgrades, and the encourage student curiosity, (3) Aspects of presentation feasibility, including presentation techniques, presentation support, presentation of learning, and coherence and demarcation of thought flow, and (4) Aspect of feasibility of graduation , includes module size, module skin design, and module contents design.

The modules for learning embroidery with manual machines are not yet available, so the students can not prepare to follow the lectures to the fullest. The learning process has not been effective yet, tends teacher-centered, not yet students-centered. For resolve that problem, we need to developing embroidery module with manual machine in order to obtain a qualified module. Embroidery work with manual embroidery machine consists of several stages: designing motifs, preparing tools and materials, tracing motifs to materials, embroidery, and finishing. Someone who wants to be an embroider or embroidery entrepreneur must learn and be master in that five steps. This is what needs to be prepared on Embroidery learning where students are expected to be competent in embroidery and this competence can be a provision for students in becoming entrepreneurs in the field of embroidery.

Based on the above description, the purpose of this study is to develop the Embroidery learning module, to describe the validity, the practicality and the effectiveness of Embroidery modules developed.

2. METHODS

This research was conducted at IKK FPP Department of State University of Padang. This type of research is Research and Development (R & D). Borg and Gall (1989) explain the purpose and steps of research and development research that is Educational Research and development (R & D) is a process used to develop and validate educational products. The R & D cycle, which consists of studying research findings, the field testing it in the setting where it wil be used eventually , and revising it to correct the deficiencies found in the field testing stage. In indicate that product meets its behaviorally defined objective.

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The development procedure used in this research is ADDIE model which consists of Analysis, Design, Development, Implementation and Evaluation. The subject of research is Embroidery module for the student of Dress Fashion. Research respondents are students and lecturers of Embroidery course subjects in Program Study PKK of Fashion Department in IKK FPP UNP. The instruments used in the research are; interview guides, observation sheets, module validation sheets and instructional tools, evaluation result sheets, student and lecturer response responses to learning modules generated based on expert judgment considerations. Data analysis obtained in this research is done in three stages, namely preliminary study stage, development, and implementation of learning module.

In the preliminary study phase, the data are analyzed descriptively qualitative because the data is in the form of information. At the learning module development stage, data analysis is done as follows: (1) Preliminary module implementation data is analyzed qualitatively by revising the learning module steps. Revisions are made on the basis of the researcher's note, observations made by the observer on the implementation of the lesson, the opinions of the expert and peer reviewers. (2) Module validation data and instructional learning are analyzed by percentage and compared to the criteria of validity. (3) Test data about material mastery and questionnaire is analyzed quantitatively to know the validity of construction and reliability of instrument.

In the implementation phase of the learning module quantitative data is analyzed to determine the effectiveness of the learning module as follows: (1) The Post-test data is analyzed by calculating the percentage of achievement of learning success criteria (2) The Pre-test and post-test data are analyzed by calculating average normalized gain scores to find out improved mastery of learning materials. (3) The Questionnaire data were analyzed by comparing the average score with category score to know the responses of the students and lecturers toward the learning implementation using the developed module.

3. RESULTS AND DISCUSSION

a. Result of research

1) Results of validation module

This stage of validation is the stage to produce learning tools that have been assessed and revised based on criticism and input from material validators, media and languages. Based on the data analysis of embroidery module validation module can be summarized the results of embroidery module validation with manual embroidery machine are as follows:

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Table 1. Results of Module Embroidery Validation With Manual Embroidery Machine

No	Aspect of Assessment	Results of Validity (%)		Mean	Category
		V-1	V-2		
1	Feasibility of Content	91,67	93,83	92,75	Very valid
2	Presentation of Materials	89,17	94,38	91,78	Very valid
3	Language Assessment	91,67	92,89	92,28	Very valid
Mean		**90,84**	**93,70**	**92,27**	**Very valid**

Based on the table 1 above can be seen that the assessment by the validator to the embroidery module with manual machine, among others: (1) Feasibility of the contents obtained 92.75% with very valid category, (2) Presentation of material obtained 91.78% with very valid category, and (3) The language assessment is 92,28% with very valid category, so that the mean is 92,27% with very valid category. Based on the above table it can be seen that the embroidery module with manual machine is 92.27% with the category "very valid".

2) Result of Practical module

The small group practice test is performed after the module has been validated by media experts and material experts. Small group practice test is done on 6 undergraduates of Undergraduates Class of 2014 who take Embroidery course.
Based on the analysis of test data of practicality of manual embroidery module in small groups can be summarized as follows:

Table 2. Results Of Practicality Test On A Small Group Of Embroidery Modules With Manual Embroidery Machines

No	Aspect of Assessment	Results of Praktikalitas **module(%)**	Category
1	Display Feasibility	84,72	Very Practical
2	Presentation of Material	79,17	Practical
3	Benefits	81,94	Very Practical
Rata-rata		**81,25**	Very Practical

The practice test in large group is done after small group practice test and the students understood the learning modules that are given to students who take Embroidery courses. The large group practicality test was conducted by 22 students with the results as in the table below:

Tabel 3. Recapitulation Of Practicality Test On A Large Group Of Embroidery Modules With Manual Embroidery Machines

No	Aspect of Assessment	Results of Praktikalitas (%)	Category
1	Appropriateness View	84,09	Very Practical
2	Presentation of Material	82,31	Very Practical
3	Benefits	84,09	Very Practical
Mean		**83,31**	Very Practical

Based on the results of practical test can be seen that the embroidery module with manual embroidery machine has been very practical both in small groups and in large groups

3) Test the effectiveness of modules in improving learning outcomes

The module effectiveness test is conducted to evaluate whether the learning module product has achieved the goal effectively in improving the quality and achievement of student learning. In this stage of effectiveness seen from the psychomotor aspect. Psychomotor value is taken from practical task done before (pre test) and after (post test) using module. The effectiveness test was conducted by 21 students, with the following results :

Table 4. Test The Module Embroidery Effectiveness With Manual Embroidery Machine

No	Criteria of efectivness	Before (*Pre Test*)		After (*Post Test*)	
		f	Porsentase (%)	f	Porsentase (%)
1	< 70	16	76,2	1	4,8
2	≥ 70	5	23,8	20	95,2

Based on the data of table above, it shows that there is a decrease in the percentage of the number of students who score below 70 that is from 76.2% to 4.8% and vice versa student learning results that managed to get the same value or above 70 increased from 23.8% to 95, 2% with very high category. So it can be concluded that the results of the effectiveness test module based on the assessment of learning outcomes in the psychomotor realm show the module in the effective category.

b. Discussion

In this research, it is obtained that the embroidery module with manual machine for Embroidery course developed is very valid. Directorate General of Management of Primary and Secondary Education (2008: 12) argued that validation aims to obtain the recognition or validation of the suitability of the module with the needs so that the module is feasible and suitable for use in learning. Sugiyono (2012) suggests product validation can be done by presenting

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some experts or experts who have experienced to assess the new product is designed, so it can be known weakness and strength.

In this research also obtained the test of embroidery module practicality with manual machine in small group and test of practicality in large group with very practical result. Hamdunah (2015: 37) suggests that the practicality is the level of learning device utilization, by conducting trials using modules that have been declared valid by the validator. Learning devices are said to be practical if the students are not learning difficulties. If the results are not practical, then the improvement so that the learning device is considered practical.

Directorate of Education Personnel (2008: 5) suggests that the purpose of making modules one of them can overcome the limitations of time, space and sensory power both learners and teachers / instructors. This time limitation is the time in computer embroidery learning in the Embroidery course where the skills that must be possessed by each student can be channeled in full in a relatively short time. The resulting module also meets the criteria of a practical media and can help the function of teachers / lecturers as facilitators in learning with aspects of the assessment of the feasibility of the display, the presentation of materials and the benefits of a medium of learning (module) that represents the achievement of the value of the practicality of a teaching material.

The results of the embroidery module's effectiveness test can be considered highly effective in improving learning outcomes. Segala (2002: 11) learning process, teachers must have a strategy so that students can learn effectively and efficiently in accordance with the expected goals. In accordance with the theory of kontruktivisme (Asri, 2005: 59) states that teachers can not only provide knowledge to students, students who must build knowledge in itself. Furthermore Nasution (1982: 205) suggests the purpose of learning by using the module is to open the opportunity for students to learn according to the speed of each, because students will not achieve the same results in the same time and not learn something at the same time. Smart students are given the opportunity to learn faster than students who are less intelligent and vice versa.

4. CONCLUSION

Based on the analysis of data and discussion, it can be concluded that Embroidery module which developed is embroidery module with manual embroidery machine prepared based on need assessment analysis and according to student characteristic and Embroidery course curriculum. The validity of the modules assessed by the validator obtained an average of 92.89% with very valid categories. Furthermore, practicality of Embroidery module by students is considered very practical (82.28%) with very practical category. Furthermore, the effectiveness of Embroidery module is considered very effective where the result of study of student who get score equal to or above 70 increased from 23,8% to 95,2% with very high category and expected to help maximize learning result according to expected purpose.

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