Development of Textbooks for Making Fashion Ornaments With Embroidery Variations

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ABSTRACT

This research aims to develop a textbook for clothing applications featuring various embroidery techniques. Learning opportunities have been constrained by the limited availability of suitable learning materials. Following the Borg and Gall model, the research and development process encompasses several stages. The initial stage involves identifying the potential value of the clothing application and addressing associated problems. Subsequently, relevant data is collected to inform the product design. The textbook is then designed based on the gathered information. To ensure quality, the product undergoes validation by media and material experts, leading to necessary revisions. The subsequent steps involve testing the product in small and large group settings, with corresponding revisions made based on the feedback received. Finally, the textbook is developed for creating fashion ornaments with embroidery variations. The material expert assessment revealed an average score of "92.26%" in the "very appropriate" category. Meanwhile, the media expert assessment resulted in an average value of "87.11" in the "very feasible" category. Small group trials achieved an average result of "79.75," falling into the "decent" category. Large group trials received an average score of "85.21" in the "very feasible" category.

Keywords: Textbooks, fashion decoration, embroidery variations

1. INTRODUCTION

One of the key objectives of the Indonesian nation is to enhance the overall welfare and intelligence of its citizens. There is a significant need for extensive development and improvement efforts to realize Indonesia's vision for the year 2045. Presently, the government is actively engaged in implementing various infrastructure projects. Beyond the focus on physical development, there is also a concerted effort to enhance human resources (HR). Human Resources, in this context, refer to individuals who are prepared, willing, and capable of contributing to endeavors aimed at achieving organizational goals. In the field of population science, the concept of human resources aligns with the notion of labor, encompassing the workforce (Samsuni, 2017).

Education plays a highly strategic role in the development of national civilization. It is an integral aspect closely intertwined with human life. Education, being a human activity, particularly among the younger generation, fosters social interactions, a sense of togetherness, and serves as a platform for influencing others. It aims to cultivate respect and foster personal connections (Putro, 2016).

Interpreting education as a means of exploring the potential within students, it aspires to instill systems of thinking, manners, norms, and beliefs inherited from society. The goal is for individuals to develop and apply this cultural heritage in ways that align with both present and future life (Muali, 2017). The quality of human resources significantly impacts a country's progress, making education an indirect determinant of a nation's overall quality. In an era marked by continuous development across various fields, society is required to adopt a systematic and clear approach in its actions. Learning, in particular, necessitates a well-defined and systematic role to ensure effective educational processes.

Academic achievement is one of the main concerns in the world of education. Quality human resources are the main basis for achieving national development. The path to quality human resource training. Obtaining education is an effort to prepare graduates to excel in the world of work. Fashion education is an educational

institution that produces competent resources capable of making major contributions to society and the country.

Learning in higher education has different characteristics learning at school. Learning in higher education is greatly influenced by the nature of the courses taught and competency needs that must be achieved (Zaini et al, 2002). Judging from the approach learning, the learning process in higher education uses an approach adult learning (Sitepuet al, 2018).

The vision and mission of the Unimed Fashion Study program is to provide knowledge, technology, skills, discipline, work ethic and creativity, as well as being a production source for skilled workers in the clothing sector to develop quality and high-quality resources that will be available soon. able to fill various vacancies in the world of business and industry. One of the factors that influences the learning process is the learning media used. Learning media is anything that can be used to convey messages from the sender to the recipient in order to stimulate students' thoughts, feelings, interests, interest and willingness so that the learning process takes place in order to achieve effective learning goals.

Educator must be able to understand and use the available tools to achieve the desired learning goals. From this statement it can be concluded that educators need to have sufficient knowledge and understanding of learning media. Especially in this era of rapid development of information technology, like it or not, educators need to be more open in mastering information technology to support the creation of an interesting and effective learning process and setting learning goals. Based on the first observations made, there needs to be appropriate learning materials in the learning process so that learning is more effective. From the observations of several students, learning media is considered important because learning is more fun and students can use media as a personal learning tool.

Basic embroidery techniques is a course that is parallel to the embroidery appreciation course, so it requires you to learn about basic embroidery stitches first before continuing on to the next course. The basic technique of embroidery is a craft art that has many variations, including variations of embroidery techniques, the art of arranging threads, adjusting colors and placing them correctly for embroidered decorations. In the basic embroidery techniques course, students are not limited to just understanding the theory, but students must implement the theory in direct practice so that students are able to independently create basic embroidery. The lecturer who teaches the basic embroidery technique course believes that the basic embroidery technique course really requires the right media to make it easier to convey the material. Furthermore, as a parallel subject to Apresia Embroidery, students are also expected to know various basic stitches and be able to develop basic stitches into various stitch variations and have the ability to decorate clothing from various embroidery techniques that have been obtained in the basic embroidery technique learning competency.

The use of textbook media will be very helpful for learning. It is known that there are still few reading sources or references or teaching materials regarding embroidery that can be utilized by students. In the learning process in class, the learning media used by students to learn embroidery is still examples of previous student assignments, there are no teaching materials in the form of books on basic embroidery, valid and practical variations. There are also books used, but only a few and only explain in general about various types of embroidery, they do not include tutorials or various decorations on clothing with a variety of embroidery techniques according to students' needs to motivate independent learning. Face-to-face learning takes limited time so there is still little information obtained during the learning process in class. When student learning is still centered on the course supervisor.

There are three studies that are relevant to this research. First, research on the development of teaching materials for making embossed embroidery in the Embroidery course at Padang State University. The teaching material developed is a learning medium in the form of printed media (hardcopy) which is presented in the form of text and images that are attractive and full color which can increase student learning motivation. Validity of the Material Teaching and learning based on material experts and media experts is declared valid (Syafrina et al., 2019). The second research, namely the development of Embroidery Teaching Materials Based on the Independent Learning Campus, has been tested by media experts and material experts as well as student trials and received a very feasible category, so the teaching materials that have been developed by researchers can be used in the learning process in Embroidery courses at the Ganesha University of Education. (Sari et al., 2022). The third research was based on the results of the scores on the assessment instrument for making fantasy embroidery textbooks for Class Next, create a fantasy embroidery textbook using the media. The fantasy embroidery textbook is an A5 size printed book containing 4 chapters and 60 pages, each chapter has practice questions and a summary of the material. It can be concluded that embroidery textbooks are suitable for use as a learning resource for the Textile Craft Department (Rupa, J.S., 2023).

It can be concluded from several relevant studies, that the relevant researchers are each researching in the field of developing teaching media in the form of embroidery textbooks using embossed embroidery techniques. In further research, study textbooks which contain new and feasible techniques and motifs that can broaden students' insight. The textbook in the next research is on fantasy techniques, the results of fantasy embroidery stitches include variations of basic embroidery stitches.

Learning using this textbook, overall it is hoped that students will have the ability to apply it correctly in decorating clothes with various variations of embroidery on clothes so that they add beauty to the clothes. Students can learn independently by utilizing the

textbook development of embroidery variations with placement on clothing. Based on the results of the needs analysis, the author tried to conduct research on "Development of a Textbook for Making Clothing Decorations Using Basic Techniques and Variations of Embroidery in the Fashion Design Study Program"

2.   METHODOLOGY

The research was conducted on fifth semester students at Medan State University. The research subjects are material experts, media experts and students.

The research carried out is a type of research and development or Research and Development (R&D). Development research is a research method or research strategy that has been proven to be able to effectively support practical learning. Development research aims to discover, create, develop and validate a product.

The procedure steps developed by Sugiyono (2019), research and development methods or in English Reaseach and Development are research methods used to produce certain products, as well as test the effectiveness of these products. Product development in this study is in the form of textbook media. The steps in this study adopted the Borg and Gall model as for the research and development steps
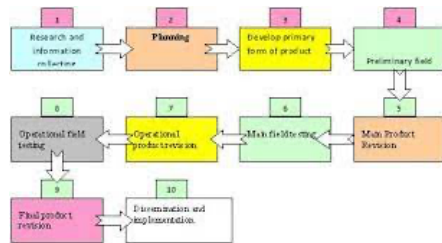

Figure 1. Research Development

The data collection technique in this textbook media development research uses an instrument in the form of a questionnaire. Sugiono (2019) Questionnaires are questions and written statements that have been prepared to be given to research respondents to answer. The instrument used to collect data in this study was a questionnaire (questionnaire) given to material experts and media experts. The questionnaire contains questions prepared according to the wishes and content of the media to be answered by the research subjects. The average evaluation rating of each subject matter expert and media expert validator is then used as a question to determine the validity and practicality of learning media.

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$$X = \frac{Total\ Score\ Obtained}{Sum\ of\ the\ ideal\ scores\ for\ all\ items} \times 100\%$$

3.   RESULTS AND DISCUSSION

The initial stage carried out to identify potential problems was a needs analysis, the results obtained. Based on the lecturer needs questionnaire that had been given to lecturers, it was found that 89.28 lecturers strongly agreed with the development of learning media in the form of textbooks. Based on the student needs questionnaire that was given to the results of the needs analysis, 66.12 students agreed to the development of textbook learning media.

3.1.   Research Results

3.1.1. Results of material validation data analysis

Tabel 1. Validity Test Results of Textbooks for Making Clothing Ornaments of Embroidery Variations by Material Experts

No	Assessment Aspects	Percentage	Category
1	Material Content Aspects	92,85%	Very decent
2	Language Aspects	91,67%	Very decent
3	Presentation Aspects	91,66%	Very decent

Based on the validation results in Table 1. The material validator consists of 3 material experts. The following are the validation results on the content of the material. The language and presentation received an average score of 92.26%, declared "Very feasible. Each section in each aspect received a score of 92.85% "Very feasible". Language aspect 91.67% "Very feasible". Presentation aspect 91.66% "Very decent". By getting a very feasible category. This shows that the textbook media developed is appropriate in terms of the specified material assessment show in figure 2 :
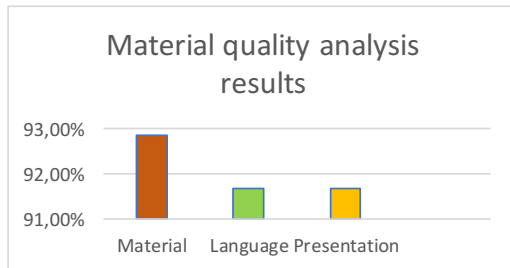
Figure 2. Material expert validation results diagram

The following is a diagram of the validation results carried out by material experts who are experts in their field. Based on the overall analysis of the material aspects, the textbook applying embroidery variations is declared very suitable for use in learning

3.1.2. Results of media validation data analysist

Tabel 2. Media Validity Test Results of Textbook for Making Clothing Ornaments of Embroidery Variations by Media Experts

No	Assessment Aspects	Percentage	Category
1	Media Aspect	100 %	Very decent
2	Visual Aspect	90,47%	Very decent
3	Benefit Aspect	94,33 %	Very decent

Based on the validation results in Table 2, media experts obtained an average score of 87.11% in the very appropriate category. This shows that the media developed is appropriate in terms of the specified assessment aspects. The results of the media analysis of students from the Fashion Design Department on the media aspect were 100%, including the "very feasible" criteria, the score percentage on the visual aspect was 90.47%, including "very feasible", and the score percentage on the benefits aspect was 94.33%, which was included in the "very feasible" category show at the figure 3 diagram :
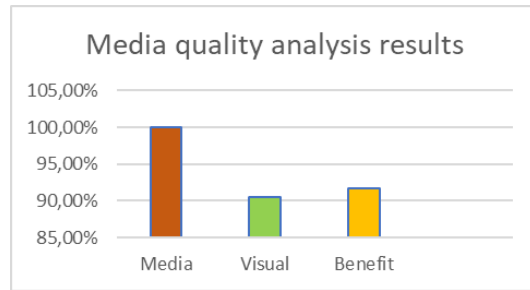

Figure 3. Diagram of media expert validation results

The following is a diagram of the validation results carried out by media experts who are experts in their field. Based on the analysis of media aspects as a whole, textbooks that apply embroidery variations are declared very suitable for use in learning.

3.1.3. Practicality Test Data Based on Student Responses

a). Small Group Test. Based on the data in table 2, it can be seen that the results of the textbook practicality test on students in small groups show an average practicality of 82.87% with appropriate criteria. These results are based on several assessment aspects, including convenience, attractiveness and time. These results show that the teaching tutorial book developed is practically used by students as a learning medium in learning.

b). Large group test
Based on the data showed on the tables, it can be seen that the results of the practicality test for student textbooks in large groups show an average practicality of 87.85% with very decent criteria. These results are based on several assessment aspects, including convenience, attractiveness and time. These results indicate that the textbook developed can be used by students as a learning medium in learning.

DISCUSSION

Research on the development of textbooks on embroidery courses is in accordance with research conducted by Sari (2022) on the development of Embroidery teaching materials based on an independent campus at the Ganesha University of Education, that there are still few reading sources or references for embroidery teaching materials presented in the form of text and images that can be used by students so that in the learning process in class students are still centered on the lecturer and students are less independent and motivated in developing techniques. So, from this research, teaching materials were obtained in the form of printed books. Teaching materials in the form of printed media will make it easier for students to learn not only during class, but also at home or anywhere.

Confirmed by an article written by Prabowo (2016) entitled "Development of Virtual Laboratory-Based Inquiry Teaching Materials" explains that if the analysis results show valid then they are suitable for use as learning media, conversely if the results show invalid then they are not suitable for use as teaching materials. In developing textbook media, the application of decoration with a variety of embroidery on clothing was carried out based on the stages outlined in the research procedure. This book consists of text, pictures of several variations of embroidery techniques and includes instructions for placing embroidery on clothing. So it's not just embroidery, it also includes adjustments to the location of the motifs and embroidery on the clothing development of textbook media on the application of decoration with variations of embroidery on clothing. The research began with a needs analysis, with the results of data collection stating that textbooks on the application of decorative clothing with a variety of embroidery are very necessary in learning. The media and material validation results are in the "very suitable" category so that the media created is suitable for use. Then a media feasibility test was carried out by conducting small and large group trials. So it is declared that the textbook is suitable for use in learning.

The development of textbooks is seen from the results of validation testing carried out in the development process, so that appropriate teaching materials are produced which are feasible. Students can study independently without lecturer guidance. It is recommended that future research include video tutorials with the addition of variations in embroidery and placement on clothing for various occasions of clothing use.

AUTHORS' CONTRIBUTIONS

The conclusions can be drawn from the research findings that have been carried out with R&D research and development (research and development). This research uses the borg and gall model. a) the textbook on the application of decoration on clothing with a variety of embroidery was declared very suitable by material and media experts with an average score of material experts of 92.26% and media experts of 87.11% so that the media created was suitable for use. b) a textbook on the application of decoration on clothing with a variety of embroidery, then a media suitability test was carried out by conducting small group trials with fashion design students. Based on data collection analysis, the total average score for small group trials was 82.87%, so it was declared that the textbook was suitable for use in learning. The use of textbook media for large group trials was carried out by distributing questionnaires to fashion design students. From the results of the analysis, an average score of 87.85% was obtained. So the development of a textbook for making fashion decorations with a variety of embroidery is declared suitable for use in learning

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