



Development of E-Book Based Learning Media on the Material of Bustier Pattern Making for Students of the Fashion Design Study Program

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Abstract. The research aims to: (1) find out how to make e-books that teach students of the Fashion Design Study Program at Universitas Negeri Medan how to make bustier patterns; and (2) see if it is possible to make e-books that teach students of the Fashion Design Study Program at Universitas Negeri Medan how to make bustier patterns. This research employs a research and development (R&D) method, utilizing Thiagarajan's 4D model. The Fashion Design Study Program at the State University of Medan conducted this research. This study focuses on developing the ability to create camisole patterns and analyze the design of camisole materials. The subjects of this research are 35 students from the Fashion Design Study Program at Universitas Negeri Medan. This learning model includes three stages: defining, design, and develop. Based on reviews from material experts and media experts about the e-book-based maker in the pattern construction course on the topic of bustier patterns, the learning media's feasibility assessment gave it a score of 88.92%, which means it is very likely to work. When students in the pattern construction course were asked to rate how well they thought the e-book-based learning media worked for them, they gave it a very high score of 4.80, which means that they think it will work well for learning how to make bustier patterns.

Keywords: Development, E-book, and Bustier pattern.

1 Introduction

Bustier pattern making, one of the materials used in the process of making basic women's clothing, requires pictures, steps, and coherent explanations for its learning. To design learning media for this problem, researchers chose to design e-book media, where e-books are media that are not only focused on writing but can also be in the form of images, so e-book media was chosen as a medium in learning bustier pattern making. In order to improve the education system in schools, today's lecturers must carry out an active and creative learning process, considering that the facilities and infrastructure on campus are adequate, such as LCD projectors, laptops or computers that can still be operated, and a stable electricity supply so that children do not get bored in the learning process and understand the learning material easily. As a moderator, lecturers must have many skills in selecting different teaching materials. This

study aims to assist students in achieving more effective learning outcomes through e-book learning media.

The term "media" originates from the Latin word *medius*, meaning "middle" or "intermediary" [1]. Arabic understands it as a medium or messenger that facilitates communication between the sender and the receiver. Within the teaching and learning context, media generally refers to tools such as graphics, photographs, or electronic devices used to capture, process, and reorganize visual or verbal information effectively. Media is the plural form of the word medium.

"Media" is the plural form of the word "medium." We can describe a medium as a channel or intermediary that facilitates the communication of messages between the sender and the recipient [2]. In the context of education, media serves as a means or structure for conveying messages or information from the source to the receiver, ensuring the intended message is delivered effectively [3]. Furthermore, media acts as a mediator for educators, allowing them to present content or messages that may not be directly observable.

The ultimate goal of media is to facilitate the learning process by delivering messages and materials [4]. Furthermore, we can broadly define media as any tool that transmits and conveys information [5].

Initially, clothing itself only functioned as a protective tool for the body from the effects of external weather. Along with the development of human resources, the use of clothing has a function as a means of non-verbal communication, namely as a message delivery in the sense that the clothing worn by someone can influence the reactions of others who see it. We can broadly divide clothing into two types: outer clothing and inner clothing. Outer clothing is clothing worn over inner clothing. The use of outer clothing is also adjusted to the occasion, such as clothing for school, clothing for work, clothing for parties, and so on. Underwear is clothing that sticks directly to the skin, which is worn before wearing outer clothing, such as underwear, bustiers, bras, tank tops, and so on. Bustiers are one of the types of underwear that have very quickly changed in model and use. Bustier is one of the underwear that is famous for its variety of shapes since the early 19th century; clothing that is only waist-length is inspired by bras and camisoles [6]. Bustier itself functions to shape the body to be more proportional when wearing kebaya, while the results of making bustiers that students do still have wrinkles. Making a bustier that is well-positioned on the body and comfortable to wear is not easy; many things become obstacles to success in making a bustier [7]. Along with the development of fashion, bustiers are not only used as underwear but also as upper clothing that is combined with trousers, skirts, and jeans. Making bustier patterns is one of the learning materials in the course on basic women's clothing, which requires the use of pictures, steps, and coherent explanations. To design learning media for this problem, researchers chose to design e-book media, where e-books are digital book media, so that e-book media was chosen as a medium for learning to make bustier patterns.

As moderators, lecturers are required to possess a wide range of skills in selecting various teaching materials. Researchers in this study aim to assist students in achieving more effective learning outcomes through e-book learning media. The learning process of making bustier patterns consists of several stages, including the preparation

stage, which includes the process of determining the design, making basic patterns, and making material and price designs. Making bustier patterns is one of the materials in the basic women's clothing course. The process of creating bustier patterns has a significant impact on students' comprehension of identifying the model. Therefore, the author chose the material for making bustier patterns with the hope that students can understand how to read bustier designs and make patterns.

2 Research Methodology

This study falls under the category of development research, also known as research and development (R&D). R&D is a research approach that aims to produce a specific product and evaluate its effectiveness [8]. This robust methodology aims to enhance practical applications [9]. The process involves creating a new product or improving an existing one to achieve better outcomes. Based on the explanation above, it can be concluded that R&D is a research method used to develop, produce, and test the effectiveness of products. The research employed the 4D development model, which includes the stages of Define, Design, and Develop. The 4D model represents a systematic approach to designing learning processes [9].

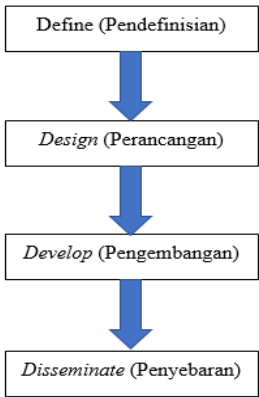


Fig. 1. Diagram The 4D model

3 Results and Discussion

We conducted a needs analysis to gather information and data prior to initiating development research. Based on the results of this study, lecturers need e-book learning media on bustier pattern material as much as 100%. E-book maker learning media can be used by lecturers as a learning media in delivering material in teaching and learning activities so that learning is more interesting. The results of the lecturer's needs analysis for e-book media on bustier pattern material can be seen.

3.1 Research Results

E-book Media Eligibility Results. The developed e-book media then goes through the validation and the developed e-book media undergoes validation and revision stages. The validation process is conducted to evaluate the alignment of the learning medium with identified needs, while the revision process focuses on refining aspects deemed less suitable based on feedback from material experts and learning media experts to ensure the product design meets the intended requirements.

E-book Media Eligibility Results. The acceptance of e-book media is evaluated by assessing its reception among users (students) regarding guides, content or materials, evaluation, design, facilities, and its pedagogical impact. This study revealed that student acceptance of e-book learning media for women's basic fashion courses on bustier patterns achieved a score of 4.80, categorized as very high.

The development of flipbook maker-based learning media on bustier pattern materials integrates key learning aspects. This study was mostly about making learning materials that professors at Universitas Negeri Medan could use. It used the 4-D development model, which has stages called Define, Design, Develop, and Disseminate.

Using questionnaires, needs analyses were done with both lecturers and students during the Define stage. The results showed that lecturers gave a score of 100% for necessity and students gave a score of 89.90%, which was classified as "Need." During the design stage, we created a storyboard to effectively structure the e-book media.

Two material experts and two media experts validated the e-book media during its development stage, offering scores, comments, and suggestions for improvement. The Fashion Design Study Program deemed the media ready for use in the teaching and learning process once it underwent validation.

The results showed that material experts rated the media's feasibility at an average of 93.84%, while media experts provided an average score of 84.00%. The e-book media received an average score of 88.92%, indicating its high feasibility. The media received a 4.80 rating from students, meeting very high criteria. We developed e-book media using the flipbook maker application.

4 Conclusion

The study's findings are presented in the form of e-book-based learning materials that teach students in fashion design programs how to make bustier patterns. Thiagarajan's 4D model, which consists of Define, Design, and Develop, serves as the development model in this study. A study was done to see if learning media could work. The study looked at how well e-book media on women's basic fashion courses on bustier pattern materials worked, scoring 88.92% in the "Very Feasible" category according to experts in both the materials and the media. It is very possible to use e-book-based learning materials for bustier pattern-making because students gave them very high scores for acceptability when they were asked to rate the usefulness of bustier pattern-making materials for women's basic fashion.

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