

# Development of Video Tutorial Media on Bustier-Making Learning

<sup>1</sup>Asiani Abu, <sup>2</sup>ST Aisyah, <sup>3</sup>Rosmiaty, <sup>4</sup>Kurniati

<sup>1,2,3,4</sup> Family Welfare Education

<sup>1</sup>Faculty of Engineering,

<sup>1</sup>Universitas Negeri Makassar, Makassar, Indonesia

**Abstract:** This research is development research that aims to: 1) Describes the procedure for developing the manufacture of video-based learning media tutorials for bustier making in the fashion class in the family welfare education department. 2) Describing the feasibility of video-based learning media tutorials for making bustiers in the fashion class. This research is a type of Research and Development (R&D). The data collection instruments used were questionnaires, interviews, and documents. This study uses descriptive analysis techniques. The results showed that: 1) The procedure for developing learning media based on this video tutorial refers to the Ariesto Hadi Sutopo development model, which is carried out through five steps, namely: (concept) Collection of Supporting Materials, (design) designing display, (material collecting) collection of media making materials, (assembly) development or integration of materials (testing) validation and testing of media feasibility. 2) The feasibility of developing learning media based on video tutorials for making bustiers reaches the Very Eligible category from 2 material experts as well as from 2 media experts get the Very Eligible category from the small group trial it got 70% in the Very Eligible category and 30% in the Eligible category and the results from the large group trial with a total percentage of 82.85% in the very feasible category and 17.15% in the decent category.

**Keywords:** Learning Media, Video Tutorials, Bustier Making.

## I. INTRODUCTION

Education is the most important element in building a creative and accomplished generation of the nation. Various educational reforms and teaching methods are carried out to improve education quality. Various breakthroughs are needed to improve the quality of education, such as video tutorial-based learning media in learning.

Learning media can be used as a supporting supplement tailored to the needs and is a very appropriate alternative to producing an effective learning process [1]. Learning video is one of the audio and visual aids simultaneously that can display an object to convey a process, explain concepts, and teach targeted skills that can influence student attitudes [2]. Learning videos can replace direct learning because making videos is done by recording directly from the learning process [3]. Moreover, the learning video shows the teacher explaining the learning process and the teacher explaining the existing material [2].

In the Fashion Design Study Program, Department of Family Welfare Education, Faculty of Engineering, Universitas Negeri Makassar, there are Adi Clothing (Fashion) subjects. Data was obtained from the interviews with the lecturers in Fashion Design Study Program that student learning outcomes were unsatisfactory, and most did not have skills to make the bustier. During the pandemic, online learning methods require students to learn independently through bustier-making modules. Students are given modules as learning materials at home. However, most students still do not understand the contents, impacting the bustier-making process. This occurs in the process of making patterns and the process of sewing the waist cup installation. As a result, students must look for references or learning resources via the internet.

Making a bustier takes the right pattern and the correct work steps or sewing process. This is intended to be able to produce stitches under the criteria in the high-fashion course. For this reason, the assistance of learning media is needed for practical fashion courses in the bustier making.

Making a bustier takes the right pattern and the correct work steps or sewing process. This is intended to be able to produce stitches following the criteria in the high-fashion course. For this reason, it takes the help of learning media in practical fashion courses in the bustier making.

The media will be developed in the form of learning videos with some differences from videos that already exist on the internet. The researcher developed a video that has a short duration, brief and concise explanation regarding the development of the bustier pattern, the working steps of making the bustier to the finishing process. The videos are combined into one learning video to make it easier for lecturers to explain a lesson and for students to understand bustier learning.

Therefore, the problem formulation of this research is: 1. How is the process of developing a bustier-making learning video? 2) How is the feasibility of the bustier-making learning video that has been developed?

## II. RESEARCH METHODS

This research is a research and development research and development (R&D), which is a research method used to produce certain products and test their feasibility of these products. The step of development is through five stages: (1) concept, (2) design, (3) material collection, (4) merging, and (5) testing. The research was carried out from November 2021 to February 2022. The research was carried out at the Laboratory of Family Welfare Education, Faculty of Engineering, Makassar State University. The small-scale

trial subjects were 10 students of the 2019 class, and for the large scale, 40 students of the 2019 class were randomly selected from 3 classes who took the fashion class.

Data collection techniques were carried out using questionnaires, interviews, and documentation. Feasibility data analysis refers to the following criteria:

Table 1 Media Eligibility Criteria

Rating Category	Value Interval
Very Worthy	$X \geq 0.80 \times \text{Highest score}$
Worthy	$0.80 \times \text{Highest score} < X \leq 0.60 \times \text{Highest score}$
Less worthy	$0.60 \times \text{Highest score} < X \leq 0.40 \times \text{Highest score}$
Not feasible	$X < 0.40 \times \text{Highest score}$

### III. RESULTS AND DISCUSSION

The development of research results to support video tutorial learning media is carried out by researchers to facilitate the learning process. It can streamline the time and place of researchers in developing learning media for making bustier-based video tutorials in detail, from the introduction of tools and materials, pattern development, and sewing process to finishing.

#### *The procedure for developing video tutorial-based learning media in the couture course*

##### a. Concept

The concept is the initial stage in making video tutorial-based learning media. In compiling the concept of learning media, it is necessary to identify the difficult part of the problem, analysis of student needs, and analysis of learning outcomes in the course, along with an explanation of learning requires identification of the difficult part of the problem, analysis of student needs and analysis of learning outcomes in the following courses:

###### 1) Identification of problems

In identifying the problem, it is done by conducting interviews with the lecturers of the fashion class. The results of interviews with researchers in the Adi Fashion course, especially in learning to make bustiers, namely the learning media used, are still in the form of modules. The methods used are in the form of lectures, demonstrations, and giving final assignments. Although many methods are applied but still have their difficulties, students must face the bustier-making process one by one. Finally, it is enough to show the video and emphasize or explain.

###### 2) Analysis of Student Needs

This analysis was carried out to discover students' problems in learning fashion, especially bustier making. Based on the results of interviews, students revealed that making bustiers only uses modules so that students do not understand the manufacturing process, such as the pattern-making process and the process of sewing the waist cup installation, so students look for references or learning resources through YouTube.

###### 3) Analysis of Learning Outcomes in Courses

At this stage, researchers study the minimum competencies students must achieve following the learning outcome set by a powerful lecturer. The learning outcome required that students must achieve to make it correctly.

##### b. Design

###### 1) Flowchart

A flowchart is an illustrative picture in the form of a flow chart that describes a program or system that is made like a picture of the sequence of the bustier manufacturing process.

###### 2) Storyboard

A storyboard or storyboard is a sketch arranged in a sequence describing the important changes in the bustier-making process. The display of learning media that will be loaded and created is based on the previous flowchart.

##### c. Material Collecting

Data collection is very necessary for making video tutorials. In addition, several things need to be provided, such as equipment when recording (camera, tripod, and microphone) and tools and materials for making it bustier. Then the making of media includes videos in MP4 form, explanations of material or work steps for making bustiers, sound (dubbing), and other supporting images. Finally, the video is made in stages to make it easier for students to understand.

###### 1) Video Capture

The video capture process is carried out in several stages, namely preparing tools and materials, determining the right light point for video shooting, determining the angle of video shooting, and determining near and far distances for making bustier videos that contain pattern development, laying patterns on cloth, cutting, sewing and finishing.

###### 2) Voice Recorder

Voice recording or dubbing is a process of filling voices in video shows that aim to provide explanations or directions at each step of the bustier-making work. But before doing dubbing, first, create a concept that will be read to make it easier when explaining (dubbing). Dubbing is done by recording sound using a cellphone and explained following the working steps of making a bustier.

d. Assembly

1) Concept Creation

At this stage, the researcher designed the video concept following the LO-IC as a fashion bustier. Taking into account the length of the video, the use of effects on the video, the angle and distance of the video, and the addition of musical arrangements tailored to the video.

2) Component Merge

At this merging stage, all components, such as materials, videos, images, arrangements, and sound (dubbing), are combined using the Adobe Premier Pro application to become learning media following predetermined concepts. The following is a screenshot of the learning media that have been combined based on the arrangement of the display concepts that have been determined:

a) Cover Page

This page displays the learning media title, "Bustier Making Learning Video."



Figure 1. The cover page of the Bustier Making Learning Video

b) Introduction

The researcher introduces himself and the university where he studied on this page.



Figure 2. Self-Introduction

c) Tools and Materials

This page introduces the tools and materials used during the bustier-making process.



Figure 3. Materials for making bustier



Figure 4. Bustier making tools

e. Bustier Manufacturing Process

On this page is the process of making a bustier, namely sewing and finishing.



Figure 5. The process of making bustier

The finished product of the bustier manufacturing process.



Figure 6. The results of the bustier are a front view



Figure 7. The results of the bustier look behind

f. Closing

The researcher would like to thank the supervisors and other parties on this page.

g. Video Tutorial Scenes

This video tutorial scene shows a bustier-making video. The video is 14 minutes 45 seconds, the title page is 5 seconds, the introduction is 25 seconds, the tools and materials are 14 seconds, and the bustier-making process includes pattern development, laying the pattern on top.

h. Testing

The test at this stage is the validation of 2 material expert lecturers, 2 media expert lecturers, 10 students in small group trials, and 35 students for large group trials. Material expert validation assesses aspects of material quality, language suitability, and criticism and suggestions. In contrast, media expert validation assesses media quality, language use, and media layout aspects. Besides that, criticism and suggestions are also provided. The validator provides an assessment based on a questionnaire instrument that has been validated by a lecturer who has been in charge of the course first.

**Feasibility of -Based Learning Media Video Tutorials**

The feasibility of a learning media based on expert validation and trials. The results of the development of learning media based on video tutorials for bustier making obtained data, namely: (1) material experts, (2) media experts, (3) small group trials, and (4) large group trials aimed at assessing the feasibility of media.

The material expert validation stage is carried out by 2 lecturers of the fashion expert course, and 2 media expert lecturers carry out the media expert validation stage. The small group trial stage is carried out by PKK students who have attended the fashion expert course with as many as 10 people and the second stage is the small group trial stage. The large group trial was carried out by 35 students of PKK who had attended the Adi Fashion course. Finally, the assessment of the feasibility of the media is carried out by filling out a questionnaire so that it can carry out an assessment ranging from very feasible to not feasible and provide suggestions for improvement.

a. Material Expert Validation

Material expert validation is used to assess the material contained in the learning media. Two material experts are powerful lecturers in the fashion department. Assessment is seen from the aspect of learning. The results of the validation of the experts are used as a benchmark for whether or not the learning media is appropriate.

- 1) The lower limit score for the very feasible category is  $0.80 \times 36 = 28.8$ , and the upper limit is 36
- 2) The lower limit score for the eligible category is  $0.60 \times 36 = 21.6$  and the upper limit is 28.7
- 3) The lower limit score for the less feasible category is  $0.40 \times 36 = 14.4$ , and the upper limit is 21.5
- 4) The score that belongs to the unfit category is less than 14.4

The questionnaire was compiled using a Likert scale. The alternative answers were very feasible, feasible, less feasible, and not feasible. The questionnaire for material experts has nine assessment indicators and consists of material quality and language aspects. The assessment results of the two material experts are seen from the overall score.

Based on the validation results from 2 material expert lecturers, they got a very decent category with the total score obtained by material expert 1, namely 35, and material expert 2, namely 33. So it can be concluded that the video tutorial for making bustier is very feasible to be used for testing.

b. Media Expert Validation

Media validation is used to assess media from aspects of media quality, aspects of language use, aspects of media layout as well as criticisms and suggestions contained in learning media. There are 2 media experts consisting of media expert lecturers who are competent in their respective fields. The results of the validation of the experts are used as a benchmark for whether or not the learning media is appropriate.

Based on the predetermined score can be calculated as follows:

- 1) The lower limit score for the very feasible category is  $0.80 \times 84 = 67.2$ , and the upper limit is 84
- 2) The lower limit score for the eligible category is  $0.60 \times 84 = 50.4$  and the upper limit is 67.1
- 3) The lower limit score for the less feasible category is  $0.40 \times 84 = 33.6$  and the upper limit is 50.3
- 4) The score that belongs to the unfit category is less than 50.3

The questionnaire compiled using a Likert scale using alternative answers is very feasible, feasible, less feasible and not feasible. The questionnaire for media experts has 21 assessment indicators. These indicators consist of aspects of media quality, aspects of language use, and aspects of media layout.

Based on the validation results from 2 media expert lecturers, they got a very feasible category with a total score of 75 each. So it can be concluded that the video tutorial for making bustier is very feasible to be used for testing.

#### c. Small Group Trial

In the results of the small group trial of 10 students, 7 students said it was very feasible and 3 students said it was feasible with a percentage of 70% in the very feasible category and 30% in the appropriate category. It can be seen in the following bar chart:

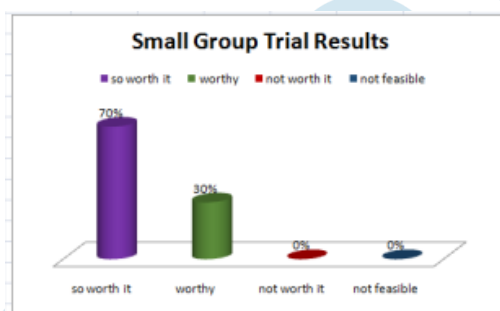


Figure 8. Small Group Trial Diagram

#### d. Large Group Trial

The results of the large group trial of 35 students, namely 29 students said it was very feasible and 6 students said it was feasible with a percentage of 82.85% in the very feasible category and 17.15% in the decent category. It can be seen in the following bar chart:

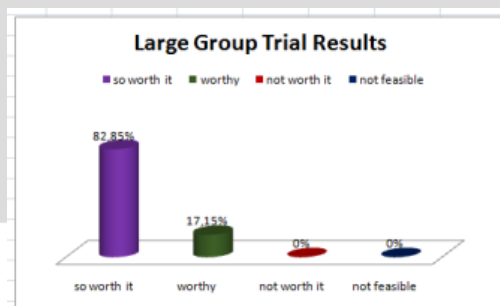


Figure 9. Large Group Trial Diagram

## IV. DISCUSSION

### *The Procedure for Developing Learning Media Based on Video Tutorials for Making Bustiers in The Couture Course*

The final product resulting from this research and development is the manufacture of a bustier based on video tutorials in the couture course. Developing this video tutorial learning media uses the development procedure proposed by [4]. The development procedure is divided into 5 steps, namely (1) concept, (2) design, (3) collecting material, (4) assembly (5) testing. At the concept stage, the researcher conducts an initial analysis process by identifying problems and analyzing student needs and learning outcomes in the course. The initial analysis was carried out to identify learning problems in the fashion class, especially the bustier-making learning which aims to find out what needs to be prepared so that the products made are under the needs of students and lecturers. The results of this study align with the results of the study [5] that the analysis stage is useful for identifying problems during learning, such as learning materials that are difficult for students to understand and see what solutions are needed.

At the design stage, there are 2 stages of making: making flowcharts and storyboards. The making of flowcharts and storyboards is made easier when compiling a concept or display flow from the learning media created. The material that has been developed is then inserted into the slides in the display design to enter the assembly stage. So it can be said that the design stage is the initial

planning stage to determine the concept of the video display that will be made. As stated by [6], There are several stages of media development, one of which is the planning stage, namely setting goals to be achieved and determining the activities that must be carried out to achieve these goals.

The collecting material stage is the core stage in making video tutorial learning media. At this stage, the researcher takes pictures or records videos, audio dubbing, and audio music arrangements used as material to be included in the video. This stage is important, so it requires a lot of preparation. Next, the assembly stage is the determining stage of the quality of the video tutorial learning media. At this stage, all the collected materials, such as video and audio dubbing, are combined or combined into a video tutorial. The video that has been made lasts 14 minutes and 45 seconds. Finally, the testing stage is validating media and material experts' learning media. Students then test in two stages: small group trials (10) students and large group trials (35) students who have programmed the couture course.

Almost the same opinion was expressed by [7] that the video tutorial development model is divided into 3 stages, namely planning (ideas), design (design), and Development (Development), (1) Planning Phase, this stage will be collecting problem analysis, needs analysis, and generating ideas (2) Design stage, this stage is the unit and session design process, making storyboards, and script design (3) Development Stage, this stage is the process of making video, making audio, programming materials, preparing supporting tools, evaluation and review, and feasibility test.

### ***Feasibility of Developing Learning Media Based on Video Tutorials for Bustier Making in The Fashion Class***

After doing the assembly stage, the researcher produced the initial video tutorial product. Before the trial process, this video tutorial was validated by two material experts and two media experts. After being validated by material experts and media experts, researchers made improvements to several parts of the video tutorial under the advice and input of experts, then the revised video tutorial was ready to be tested on students. The trial phase was carried out in two stages: the small group stage and the large group stage.

- a. Material Expert The results of the eligibility criteria for the video tutorial making bustier learning media were reviewed from 2 material experts, the results of the assessment sheet from material expert 1 gave a score of 35 for material expert 2 gave a score of 33 with a very decent category. This study's results align with the results of the study [8] that the aspects of learning design, material usefulness, material continuity and construction are in the proper category.
- b. Media Experts The results of the eligibility criteria for video tutorials make learning media bustier in terms of 2 media experts, the overall score of two opinion options is very feasible with a score of 75. The results of this study are in line with the results of the study [9] that video media is very feasible and effective to use in the learning process because 1) it presents information more acceptable to students, (2) helps explain the process step by step systematically, (3) overcomes the limitations of space and time, (4) is more realistic and understandable and can be played repeatedly according to their needs, (5) the video gives a deep impression and can influence student attitudes. Furthermore, the same research results were obtained [10] that video tutorials encourage students to understand the practical material better to be studied.
- c. Small Group Trial The small group test was conducted by 10 students with a total of 15 questions. The highest score is 60 and the lowest score is 24. As a result, 1 student who gets the highest score with a score of 55 and the lowest score obtained by a student is a score of 47 with a decent category. Based on the results of the descriptive analysis, it is known that the average overall score is 50.2. When viewed from the feasibility test table, this value is included in the very feasible category. These data indicate that the video tutorial-based learning media for bustier making is very feasible to use in learning. In line with research results [11], video as a tutorial learning media can be categorized as effectively used to complete learning facilities as the discussion material.
- d. Large group trials, large group trials were conducted on 35 students with a total of 15 questions. The highest score is 60 and the lowest score is 24. As a result, students get the highest score with a score of 60 and the lowest score obtained by students is a score of 44 with a decent category. Based on the results of descriptive analysis, it is known that the overall average is 51.11. When viewed in the large group trial table, this value is included in the very feasible category.

## **V. CONCLUSION**

The conclusions from the research and development of learning media for making bustier-based video tutorials are as follows:

- a. The process of developing the learning media for making bustier video tutorials is developed through five stages, namely 1) concept (concept) in the form of problem identification, analysis of the needs of lecturers and students, 2) design in the form of drafting media display concepts, 3) collecting material in the form of collecting tools and materials used. needed for product manufacture, 4) assembly combines all components that have been prepared and made for learning media and 5) testing (trial) which includes validation of material experts and media experts, each of which is 2 expert lecturers.
- b. The results of the feasibility assessment of the video tutorial making bustier learning media from 2 material expert validators obtained a score of 100% which was categorized as very feasible, while the assessment of media experts received a score of 100% which was categorized as very feasible. The small group trial obtained a percentage of 70% in the very feasible category and 30% in the appropriate category, and the assessment in the large group trial obtained a percentage of 82.85% in the very feasible category and 17.15% in the appropriate category.

## **VI. RECOMMENDATION**

Based on the study results, the following things can be suggested: 1) The Development of learning media for making bustiers based on video tutorials should make the background opening in front of the fashion laboratory. 2) The Development of learning media for making bustier based on video tutorials on the opening of the voice intonation is improved. 3) Development of learning media for making bustier video tutorials based on pattern development, it is better if the description of the typed image is not written

by hand. 4) Development of learning media for making bustier video tutorials based on the finished results, it is better to show the front, back and side views.

## REFERENCES

- [1] Z. F. Pratiwi and M. Ayu, "THE USE OF DESCRIBING PICTURE STRATEGY TO IMPROVE SECONDARY STUDENTS' SPEAKING SKILL," *J. English Lang. Teach. Learn.*, vol. 1, no. 2, pp. 38–43, 2020.
- [2] R. E. Mayer, L. Fiorella, and A. Stull, "Five ways to increase the effectiveness of instructional video," *Educ. Technol. Res. Dev.*, vol. 68, no. 3, pp. 837–852, 2020.
- [3] M. Perifanou and A. A. Economides, "International Review of Research in Open and Distributed Learning," *Landscape*, vol. 23, no. 3, 2022.
- [4] W. P. Neumann, S. Winkelhaus, E. H. Grosse, and C. H. Glock, "Industry 4.0 and the human factor—A systems framework and analysis methodology for successful development," *Int. J. Prod. Econ.*, vol. 233, p. 107992, 2021.
- [5] H. Liu and B. Lang, "Machine learning and deep learning methods for intrusion detection systems: A survey," *Appl. Sci.*, vol. 9, no. 20, p. 4396, 2019.
- [6] M. Kabeyi, "Organizational strategic planning, implementation and evaluation with analysis of challenges and benefits," *Int. J. Appl. Res. Stud.*, vol. 5, no. 6, pp. 27–32, 2019.
- [7] N. Aryuntini, I. Astuti, and Y. Yuliana, "Development of learning media based on videoscribe to improve writing skill for descriptive text of english language study," *J. Educ. Teach. Learn.*, vol. 3, no. 2, pp. 187–194, 2018.
- [8] D. A. M. M. O. Priantini, "The development of teaching video media based on Tri Kaya Parisudha in educational psychology courses," *J. Educ. Technol.*, vol. 4, no. 4, pp. 448–455, 2020.
- [9] R. Rabiman, M. Nurtanto, and N. Kholifah, "Design and Development E-Learning System by Learning Management System (LMS) in Vocational Education.," *Online Submiss.*, vol. 9, no. 1, pp. 1059–1063, 2020.
- [10] C. Lange and J. Costley, "Improving online video lectures: learning challenges created by media," *Int. J. Educ. Technol. High. Educ.*, vol. 17, no. 1, pp. 1–18, 2020.
- [11] E. Vdovina, N. Popova, A. Gavrilova, and A. Kuzmina, "Video technology for teaching foreign language speaking skills in a technical university," in *ICERI2019 Proceedings*, 2019, pp. 9747–9757.



IJRTI