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Development of Video Tutorials to Making Embroidery Terawang for Embroidery Courses

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Abstract

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This research aims to develop a video tutorial for Embroidery Terawang, so that students are able to understand and carry out learning activities independently during activities from home. This type of research is research and development, while the research method used is the 4D development model which consists of define, design, development and disseminate, but in this research it only reaches the development stage. The data in this study are primary data obtained from a questionnaire on the validity and practicality of the product. The validity of the product was carried out by 2 media validators and 2 material validators. The subjects in this study were 1 lecturer for the embroidery course, 15 students for the small group trial and 50 students for the large group trial consisting of D-III and S1 students in the Department of Family Welfare Science in the year of entry. 2020. The product produced from this study is the Embroidery Terawang video tutorial in the Sulaman course with a validity test value obtained by a percentage of 84.13% with a very valid category. Meanwhile, the practicality test for the subject supervisory lecturers obtained a percentage of 91.6% with the very practical category, the small group practicality test was 87% with the very practical category and the large group practicality test obtained a percentage of 87.7% with the very practical category. Based on the research results, it can be concluded that the Embroidery Terawang video tutorial in the Embroidery course for fashion students of the FPP-UNP Family Welfare Science Department developed is very valid and very practical.

Keywords: Development, Learning Video, Embroidery Terawang

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INTRODUCTION

Development of science and technology in education has become significantly influential alongside the progress of time. According to Law Number 12 of 2012, education is a conscious and planned effort aimed at creating a learning environment and process that enables learners to actively develop their potentials. This aims to empower them to exercise self-control, form their personalities, enhance intelligence, practice noble ethics, and acquire necessary skills for themselves, society, and the nation. Education can be carried out at various levels depending on the needs and readiness of learners to participate.

To improve the quality of learning in line with technological advancements, educators are required to develop learning media that enhance students' enthusiasm for learning (Astuti, 2019). Education is foundational in life and should be built upon as effectively as possible to ensure quality learning



processes. Educators play a crucial role in supporting the quality of education, and their success in teaching activities is reflected in the achievements of learners (Samala, Ambiyar, Jalinus, Dewi, & Indarta, 2022, p. 2).

Improving the quality of education can be achieved by enhancing the learning processes in educational institutions, both schools and universities (Astuti, 2019, p. 119). Media can convey accurate, concrete, and realistic concepts, thereby clarifying unclear content and serving as an intermediary (Ardana, 2011, p. 26). One such instructional media that can be used is video tutorials. Video is a tool that presents information, demonstrates processes, explains complex concepts, teaches skills, controls the pace of learning, and influences attitudes (Kustandi & Sutjipto, 2011).

Universitas Negeri Padang is a university in Indonesia with 8 faculties, including the Faculty of Tourism and Hospitality. Within the Department of Family Welfare Sciences, there are three programs: Fashion Design (D3), Culinary Arts (D3), and Family Welfare Education. Additionally, there are Bachelor's programs in Fashion Design and Culinary Arts. The Fashion Design programs, both at the Bachelor's and D3 levels, include courses like Embroidery. Embroidery is a practical course aimed at developing students' ability to decorate clothing (Daryanto, 2013).

Embroidery involves artistic or craft decoration on various materials like leather, fabric, or other materials using thread and needle to create various designs (Riduwan, 2012). Today, embroidery has become a high-value handcraft with significant demand in the creative crafts industry, particularly among millennials. Mastery of accurate techniques and meticulous work is crucial for achieving high-quality results in embroidery (Sadima, 2011).

Instructional media aid the teaching and learning process by clarifying messages, thereby enhancing learning outcomes more effectively (Rusman, 2011). Instructional media can be visual, audio, or audiovisual. Video tutorials are a form of instructional media that combines audio and visual elements to convey educational messages, including concepts, principles, procedures, and practical applications of theories to facilitate understanding of subjects (Cheppy, 2007). Video tutorials fall under the category of audiovisual media.

This research aims to develop a video tutorial on the creation of cutwork embroidery for the Embroidery course for Fashion Design students at the Faculty of Tourism and Hospitality, Universitas Negeri Padang (FPP UNP). The study also aims to describe the validity and practicality of the developed video tutorial.

METHODS

This study adopts the Research and Development (R&D) approach (Sugiyono, 2017). The development of the cutwork embroidery video tutorial was conducted in the Department of Family Welfare Sciences, Faculty of Tourism and Hospitality, Universitas Negeri Padang (Arikunto, 2006). The subjects of the study involved Fashion Design students from both the Bachelor's and D3 levels in the Department of Family Welfare Sciences. The research follows the 4D development model stages: define, design, develop, and disseminate (Arikunto,

2010). However, this study focuses only on the development stage (develop), as dissemination was constrained due to researcher limitations. Descriptive analysis techniques were used for data analysis. Research instruments included validation sheets and practicality test sheets. Data collection methods included observation, interviews, and questionnaires to gather necessary information for developing and evaluating the cutwork embroidery video tutorial (Sujadi, 2003).

RESULTS & DISCUSSION

This research and development has resulted in a video learning media for cutwork embroidery that is both valid and practical. The creation of this video media followed the 4D development process, including the define, design, develop, and disseminate stages (Yusmerita, 1992; Zullkarnaen, 2006).

The define stage encompassed four phases: Front-end Analysis, Student Analysis, Task Analysis, and Concept Analysis. Front-end Analysis was conducted to identify and define fundamental issues in teaching cutwork embroidery, specifically in the production of cutwork embroidery (Yuliarma, 2016; Yusmerita, 1992). Student Analysis examined student characteristics, including abilities, background, and cognitive development. Task Analysis detailed the teaching content outline, while Concept Analysis identified key concepts for developing cutwork embroidery teaching materials.

Learning objectives were formulated based on core competencies and indicators outlined in the embroidery curriculum and syllabus. These objectives were implemented in the form of a video tutorial for cutwork embroidery (Wasia, 2009; Yuliarma, 2013). The design stage was based on the established syllabus and involved several steps: 1) literature review, 2) establishing an instructional framework, 3) developing designed materials, and 4) drafting the script for the video tutorial.

The design of the cutwork embroidery video media was edited using Adobe Premiere Pro CC 2018, incorporating images, sound, background music, and text. Adobe Premiere Pro CC 2018 is a software application used to edit raw footage directly from cameras into a cohesive video unit, ensuring a 1080 HD quality video of approximately 710 MB that maintains clarity and accessibility on laptops, smartphones, and other devices (Sadiman, 2015).

The development stage aimed to produce revised learning tools based on feedback from experts, which included:

1) Validation Phase: This phase assessed the cutwork embroidery tutorial video's content, presentation, and language. Data validation for the video tutorial media was collected using questionnaires from 4 validators: 2 media experts and 2 subject matter experts. The validation results are summarized as follows:

Table 1. Media Validation Results

Assessment Aspect	Validation Results	Category
Media Appearance	83%	Very valid
Compliance	90,6%	Very Valid
Overall Average	86,6%	Very Valid

Based on the table above, it can be concluded that from the two assessment aspects in media validation, the results are as follows: 1) The media display aspect received a score of 83% in the very valid category, 2) The guidelines aspect received a score of 90.6% in the very valid category. As a result, an overall average score of 86.6% was obtained in the very valid category.

The results of the material validation for the assessed aspects can be seen in the table below:

Table 2. Material Expert Validation Results

Assessment Aspect	Validation Results	Category
Content	82,5%	Very Valid
Language	75%	Valid
Presentation	87,5%	Very Valid
Overall Average	81,66%	Very Valid

From the data presented in the table above, it can be concluded that in the assessment of the three aspects of material validation, the results are as follows: 1) The content aspect received a score of 82.5% in the very valid category, 2) The language aspect received a score of 75% in the valid category, 3) The material presentation aspect received a score of 87.5% in the very valid category.

After combining the media validation results and the material validation results, the final result falls into the "very valid" category. Therefore, this learning media can be used in the process of teaching terawang embroidery.

- 2) Revision Stage: Before conducting trials of the cutwork embroidery tutorial video, revisions were made based on feedback and suggestions from validators. Revisions included:
 - a) Adding annotations to the embroidery images.
 - b) Reducing excessive variations to maintain focus on the material.
 - c) Adding bullet points to structure the material presented.
 - d) Improving audio quality by re-recording to ensure clarity and using Adobe Podcast.
 - e) Adding content about the differences and unique characteristics of each type of terawang embroidery.
 - f) Enhancing lighting in the video for clearer visuals.
- 3) Practicality Stage: The practicality stage was conducted to measure the ease of use of the tutorial video for making terawang embroidery. This measurement was carried out using questionnaires filled out by the embroidery course instructor and students who had previously taken the embroidery course. The practicality test for the instructor was given to Dr. Yeni Idrus M.Pd, the instructor of the embroidery course. The practicality results are summarized as shown in the following table:

Table 3. Practicality of Lecturers in Embroidery Courses

Assessment Aspect	Practicality Results	Category
Appearance	75%	Practical
Material Presentation	100%	Very Practical
Usefulness	100%	Very Practical
Overall Average	91,6%	Very Practical

Based on the information provided in the table above, the conclusions drawn from the three assessed aspects are as follows: 1) The appearance aspect

received a score of 75% in the practical category, 2) The material presentation aspect received a score of 100% in the very practical category, 3) The usefulness aspect received a score of 100%. Overall, the average practicality result with the embroidery course instructor reached a score of 91.6% in the "very practical" category.

The practicality test on a small group was conducted after the media validation and material validation stages were completed. This small group practicality test involved the participation of 15 students from the fashion design study program, both from the D-III and S1 levels, in the Department of Family Welfare, who enrolled in 2020 and had previously taken the embroidery course. The practicality test process used questionnaires, and the results are presented in the following table:

Table 4. Small Group Practicality Test

Assessment Aspect	Practicality Results	Category
Ease of Use	86%	Very Practical
Appeal	88%	Very Practical
Time Efficiency	87,2%	Very Practical
Overall Average	87%	Very Practical

Based on the table above, it can be concluded that the students' practicality assessment of three specific aspects can be detailed as follows: 1) The ease of use aspect received a score of 86% in the very practical category, 2) The attractiveness aspect received a score of 88% in the very practical category, 3) The time aspect received a score of 87.2% in the very practical category. Overall, the average practicality result from the small group of students produced a score of 87% in the "very practical" category. This indicates that the tutorial video for making terawang embroidery is suitable and beneficial for use.

The practicality test on a larger group was conducted after the practicality test on the small group was completed. This larger group practicality test involved the participation of 50 students from the Family Welfare Science Department, both D-III and S1 levels, who enrolled in 2020 and had previously taken the embroidery course. The practicality test process used questionnaires, and the results are presented in the following table:

 Table 5. Large Group Practicality Test

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Assessment Aspect	Practicality Results	Category	
Ease of Use	86%	Very Practical	
Appeal	88%	Very Practical	
Time Efficiency	89%	Very Practical	
Overall Average	87,7%		

Based on the information provided in the table above, the conclusions drawn from the students' practicality assessment of three specific aspects can be detailed as follows: 1) The first aspect received a score of 86% in the very practical category, 2) The attractiveness aspect received a score of 88% in the very practical category, and 3) The time aspect received a score of 89% in the very practical category. Overall, the average practicality result from the larger group of students produced a score of 87.7% in the "very practical" category. Therefore, it can be concluded that the tutorial video on making terawang embroidery is suitable and beneficial for use.

Discussion

The development of a video tutorial learning media for cutwork embroidery aimed at fashion design students in the Faculty of Tourism and Hospitality, Universitas Negeri Padang, involved several steps, divided into the define, design, and develop stages. Through a needs assessment analysis, indicators were successfully identified that students should master in the context of cutwork embroidery: 1) introduction to tools and materials, 2) the process of cutwork embroidery, and 3) closure.

The stages in developing the cutwork embroidery learning media are as follows:

1. Video Learning Media Design

In this step, the researcher developed a plan for creating instructional media based on curriculum evaluation, learner characteristics analysis, and content analysis while formulating the objectives to be achieved. This process involved three phases: pre-production, production, and post-production. During the pre-production phase, the researcher aligned the content with the learning objectives and designed a storyboard (Arsyad, 2013). The production phase included preparing the necessary tools and materials, followed by filming and video recording, and editing the content according to the storyboard plan. Finally, in the post-production phase, the final refinement or improvement of the product was conducted (Daryanto, 2010).

2. Validation of Video Learning Media

In this stage, the researcher validated or assessed the feasibility of the product design through evaluation by experts in the field, which included 2 media experts and 2 subject matter experts using questionnaires. The strengths, weaknesses, and feedback provided were used to refine the materials and the instructional media design that had been prepared.

The validation survey results for the media yielded a score of 86.6%, and for the material validation, a score of 81.66%, resulting in a total score of 84.13% categorized as highly valid. Thus, the instructional video media was deemed suitable for use with minor revisions.

From the overall perspective, the developed video tutorial learning media for cutwork embroidery was engaging, clear, well-presented, and suitable for use, as indicated by the combined results of media validation and material validation at 84.13% with a highly valid criterion.

3. Practicality of Video Learning Media

According to Hadunah (2015:37), "practicality is the level of usability of instructional tools, by conducting trials using instructional videos that have been validated by experts". Practicality entails usability, ease of use, and applicability. In this research, practicality testing of the instructional video was conducted with students and the embroidery course supervisor after validation by media and subject matter experts.

Based on the practicality data generated from the responses of the embroidery course supervisor, it can be concluded that this instructional media falls into the category of highly practical with an average percentage score of 91.6%. The assessment of practicality by the course supervisor involved three aspects: Appearance, Material Presentation, and Usefulness.

Not only assessed by the course supervisor, but the practicality of the media was also evaluated through student responses. The analysis of student practicality data was conducted in two stages: a trial with a small group (15 students) and a trial with a large group (50 students) from the 2020 fashion design cohort. The practicality analysis data from the small group trial indicated an average media achievement rate of 87%, categorized as highly practical.

Similarly, the results of the practicality analysis data from the large group trial obtained an average media achievement rate of 87.7%, categorized as highly practical. As Fanny (2015:1) stated, "practicality is the research result of practicality instruments on implementation by considering ease aspects throughout the learning process." Therefore, based on the practicality test results, it can be concluded that the practicality of the cutwork embroidery tutorial video shows highly valid results and is suitable for use by students in their learning activities.

CONCLUSION

The design of the cutwork embroidery tutorial video media takes the form of audiovisual content, which includes the following steps: determining the design or process of cutwork embroidery, preparing the necessary tools and materials, conducting shooting, and finally editing to produce the cutwork embroidery tutorial video media with an introduction to the content and a conclusion. The introduction includes a cover and an introduction to cutwork embroidery, the content covers the definition of cutwork embroidery and its process, and there is a conclusion. This video also includes images, sound, and music.

This research model follows the 4D approach with stages of definition (define), design (design), development (development), and dissemination (disseminate). Based on the validation survey results, it was found that the cutwork embroidery tutorial video learning media received a media validation score of 86.6% and a material validation score of 81.66%. This resulted in a total score of % with a highly valid criterion. Practicality survey results indicate that responses from the embroidery course supervisor reached a score of 91.6% with a highly practical category. Furthermore, practicality survey results from students who participated in small group trials (15 people) achieved a score of 87%, falling into the highly practical category. Similarly, in large group trials (50 people), the average media achievement score was 87.7%, classified as highly practical. This indicates that the cutwork embroidery tutorial video media is suitable and effective for use in the learning process.

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