

# Learning Multimedia Development of Finished Fabric Without Scissors

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**Abstract**—Multimedia learning as a learning support is needed to make learning material more interesting. Multimedia is the integration of several multimedia such as books, audio, video, or television. The purpose of this study was to obtain data regarding the development of multimedia used in learning finished fabric without scissors. The research method used in the learning of finished cloth multimedia without scissors is the R & D (Research and Development) method, which is a method of development to produce a product in the form of multimedia learning through a scientific process. Validation results from multimedia experts obtained a percentage value of 88.2% with several revisions in the form of 1) adding a home button in the lower left corner of each slide making it easier for users to return to the main menu (home) after entering the content menus, and 2) adding animation effects to each text. Validation results from material experts obtained 89.3% value with revisions in the form of image retrieval improvements during the wiron making process. The findings of multimedia experts and material experts indicated that the learning of finished cloth learning without scissors was very suitable to be used as multimedia learning in Ethnic Clothing lectures, especially in the practice of making finished fabrics without scissors, which could ultimately motivate students to study harder and improve quality learning outcomes.

**Keywords**—finished cloth without scissors; learning multimedia; R & D research method

## I. INTRODUCTION

Multimedia is an intermediary tool for delivering messages or information. A teacher will not be separated from the learning media. The word multimedia comes from Latin and is a plural form of "medium" which literally means intermediary or introduction. Multimedia learning is software (software) or hardware (hard ware) that functions as a learning tool or learning aid. Multimedia is essentially a component of the learning system.

The use of multimedia in education has several features not shared by other media. Among the features according to Munir is multimedia in computer-based education, multimedia integrates various media (text, images, sound, video and animation) in one program digitally, multimedia provides interactive processes and provides convenience feedback, multimedia gives freedom to students in determining subject matter, and multimedia provides systematic control in learning [1].

Learning is expected to students can optimally carry out learning activities so that the instructional objectives that have been set can be achieved optimally. Teaching components consist of those who interact and interact with one another to achieve the pre-determined teaching objectives. Multimedia will greatly help the effectiveness of the learning process and the delivery of messages or learning content. The implication of this observation is that learning development efforts that aim to integrate multimedia technology effectively in the context of education must teach educators how to use technology in the context of "adjusting the needs to the ability of students for curriculum purposes" [2]. Multimedia learning can help students improve understanding, facilitate interpretation of data, compress information, and generate motivation and interest in learning one of which is in the learning of finished fabrics without scissors.

Finished cloth is a long cloth (batik cloth) that is shaped in such a way that it is very practical to wear [3]. Fabrics are very practical and efficient in their use Long fabrics are not practical to use because they require a long time, a lot of processes and require patience and accuracy when pairing them, especially in the mew iron process. Wiron is a term for some fan-like pleated fabric that is deliberately made at one end of the batik cloth and placed in the middle of the face. There are courses on Ethnic Clothing in the Tata Busana Education Study Program proving the openness of education to the preservation of fabric making techniques without scissors that can applied to batik cloth. Ethnic Clothing courses in making finished fabrics without scissors are included in complex learning, so students can quickly learn the material so that multimedia learning is made. The stages of the fabric processing process without scissors requires multimedia that contains elements of motion to help the understanding of students so that it is easier to understand the concepts and techniques of making finished fabrics without scissors themselves.

Multimedia learning as a learning support is needed to make learning material more interesting when studied by students. The use of multimedia learning can help explain the process of applying fabric making techniques from beginning to end in an easily accessible multimedia learning so that it can produce almost the same understanding for each student. The formation of education using multimedia technology in terms of the use of progressive levels and their integration is

valuable, forcing the conceptualization of effective technological integration as a process of "change" that inherently leads to transformational practices; not as an acquisition of simple skills needed to translate material into new media.

Multimedia learning that contains video in the sense of moving images accompanied by sound has a high level of retention by showing the application process of making finished cloth without scissors in a more accurate and detailed manner so that it helps students to be able to imagine the concrete process. Multimedia learning is felt to be able to help achieve learning goals. Learning is declared successful in achieving the goal if it is able to make students re-apply the abilities, they have learned in the learning process. Multimedia capabilities in improving creativity have been tested because multimedia also has interactivity. In this connection, Romiszowski in Hardi Wirasasmita, Rasyid, translates interactivity as a two-lane relationship between educators and students [4]. A two-track relationship will create a dialogue situation between two or more students. This dialogue relationship can be fostered using computers because it has multimedia capacity that will be able to make the learning process interactive.

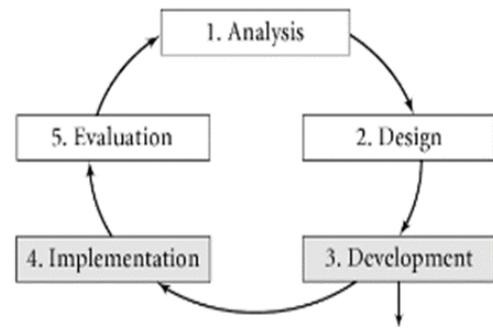
The background description above is the basis of the author's mind to make research on "Multimedia Development of Learning Fabrics Without Scissors". The use of multimedia learning is expected to make the learning process more effective and efficient and enrich the knowledge of ethnic fashion, especially the manufacture of finished fabrics without scissors.

The formulation of the problem of this research is "How is Multimedia Development in Learning to Become Cloth Without Scissors?"

## II. RESEARCH METHODS

This study uses research and development methods (Research and Development). This research is carried out in order to produce a product in the form of learning media that meets the criteria through a scientific process and validation stage.

Making is procedural steps that must be taken in order to produce multimedia products that are suitable for use. Multimedia making is done to make multimedia that does not yet exist in the form of multimedia that is good and in accordance with the problems at hand. Making multimedia is also done to deal with the demands of the times, the more renewed the technology, the making of multimedia must be more advanced. Multimedia creation procedures include analysis, design, development, implementation, and evaluation [1] as in the following figure:



William w. lee (Munir) [1]

Fig. 1. Five stage of media making procedure.

This study involved a number of participants to obtain validation results data. The participant or validator consists of several teams adapted to the research stage and the expertise possessed regarding finished cloth learning multimedia without scissors. The validator of the learning product of finished cloth learning multimedia without scissors in this study is a multimedia expert on finished cloth learning multimedia without scissors, material experts on finished fabric without scissors, and users, namely students of the Fashion Study Education Program.

## III. RESULTS AND DISCUSSION

The use of multimedia in the learning process will greatly help the effectiveness of the learning process and the delivery of messages or learning content. Multimedia can help students improve understanding, present data with interesting and reliable, facilitate interpretation of data, compress information, and generate motivation and interest in learning, the delivery of lessons is not rigid, and the length of time the learning required can be shortened. Learning can be given anytime and anywhere.

The process of making learning multimedia for finished cloth without scissors has 5 (five) stages in accordance with the concept of research and development (R & D) method which starts from the analysis phase, in the form of general analysis, software devices namely Adobe Flash, Adobe Illustrator, Adobe Photoshop, Adobe Premiere Pro, adobe after effects, Microsoft power points, and hardware namely DSLR cameras, personal computers, laptops, printers, flash disks, digital versatile discs. The second stage is the design stage that refers to the story board, story line, frame display design, script design, flowchart design. The third stage is the manufacturing stage, namely interface creation, coding, test movie, publishing, and packaging. The fourth stage is the validation phase of finished fabric learning multimedia without scissors carried out by multimedia experts, material experts, and then tested to users. The fifth stage is the revision or improvement stage obtained from the input and suggestions of the validator. The five stages are carried out to get good multimedia use (Sugiyono.2012. Pp. 407). Multimedia learning is chosen because it can create two-way communication between users and applications, users can freely operate multimedia learning. Multimedia learning is a combination of text, graphics / images, sound, video, and animation [5]. Multimedia learning

is equipped with a controller so that users can operate it as needed.

Multimedia validation of finished cloth learning without scissors is done to multimedia experts. Aspects seen in the learning multimedia validation in the form of multimedia learning display that contains an assessment of the appearance of the image, the effectiveness of the use of navigation buttons, the effectiveness of the use of text and animation effects.

The results of the validation of the multimedia aspects of learning by multimedia experts, obtained an average percentage of 88.2% which can be categorized as very feasible to be used as a learning multimedia with revisions on the theme of font writing and the addition of text animation. In the figure 2 can be seen as follows:

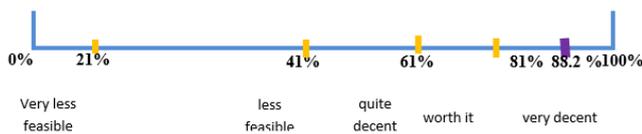


Fig. 2. The results of the validation of the multimedia aspects of learning by multimedia experts.

Research findings in the multimedia aspect show that multimedia experts approve finished cloth learning multimedia without scissors is very suitable to be used as a learning media in the learning process of finished fabric without scissors. Multimedia learning is a very effective medium to help the learning process, both for mass learning, individually and in groups, learning using multimedia learning is non-print teaching material that is rich in information so that it can increase the retention level of students towards learning materials [6]. Multimedia learning is a multimedia that is easy to use in classroom learning when educators and students interact directly with the multimedia.

Validation of finished fabric learning material without scissors is done on material experts. The aspect seen in the validation of cloth learning multimedia material without scissors is the finished fabric material without scissors.

The results of the validation from the aspect of assessment of the learning of finished cloth multimedia without scissors to the material experts, obtained an average percentage of 89.3% which can be categorized as very feasible to use. In the Figure 3 can be seen as follows:

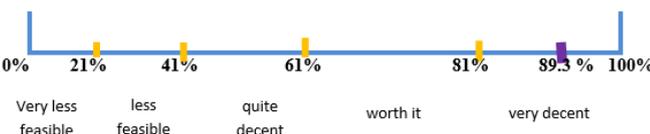


Fig. 3. The results of the validation from the aspect of assessment of the learning of finished cloth multimedia without scissors to the material experts.

The research findings show that learning multimedia can be said to be feasible if the material and learning objectives are complete, have appeal, according to the needs of students,

provide assistance for learning, provide learning motivation, flexible instructional, and easy to use [5].

Validation by the user aims to find out the learning of the finished cloth learning multimedia device without scissors, and find out the multimedia learning. The results of validation from aspects of multimedia learning assessment to users, obtained an average percentage of 100% which can be categorized as very feasible to use. Learning media is assumed to be quite interesting and easy to use.

#### IV. CONCLUSION

Based on the stages of research and developing multimedia learning of finished cloth without scissors that have been carried out, it can be concluded that finished fabric without scissors is part of ethnic fashion learning material. In learning finished fabric without scissors, multimedia needs to be made to support learning so as to provide convenience and can improve students' understanding of learning material. The concept and process of developing finished learning multimedia without scissors is made in several stages starting from the potential and problem discovery stage, data collection stage, design stage, validation stage, revision stage and assessment stage. Multimedia learning of finished fabrics without scissors adjusted to the multimedia learning feasibility standards includes the use of video, images, text, background and narrative.

Assessment of multimedia learning is done by validating multimedia experts, material experts, and testing the user. Validation results show that the learning of cloth multimedia without scissors has several aspects that need to be improved. Repair of finished cloth learning multimedia without scissors is done to achieve a more optimal level of feasibility. The results of the validation analysis conducted to assess the feasibility of learning multimedia made an average percentage of 88.2% of multimedia experts, 89.3% of material experts, and 100% of users. This shows that the finished cloth learning multimedia without scissors made in the percentage scale is very feasible to be used as a learning medium in the finished fabric learning process without scissors in Ethnic Clothing courses.

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