Development of Multimedia Video Tutorial Learning Quillng Technique

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Abstract—The quilling technique is an activity that involves a person's creativity in rolling paper at first but according to the material needs, you can use a cloth/ribbon/rope by paying attention to aesthetic values so as to produce beautiful and charming artwork. Preliminary study results with 2017 Fashion Design Education students that the quilling technique is one of the materials with a high level of complexity, so a multimedia video tutorial is chosen which will explain the material in stages with a clearer and more detailed audio-visual display of motion. The purpose of this research is to conduct a preliminary study of the learning media used, design and make multimedia video tutorials, validate multimedia experts, material experts and users, make revisions, process data and analyze the results of multimedia validation tutorials for making quilling techniques. The research method used is the Research and Development method, this research stage starts from the design stage, the production and development stage, the validation stage and the revision stage. The findings of the validation results by a team of media experts, a team of material experts and users indicated that there were several revisions to the multimedia video tutorial on the quilling technique, namely adding information in the form of text to the video on the process of making the quilling technique to avoid burnout. After the revision was made, the results of the validation of the media expert team were 90.28%, the material expert team was 97.26% and the users were 94.17%. The conclusion is that the making of multimedia tutorials on the quilling technique is "feasible" to be used in the learning process of the accessories subject, because it contains clear knowledge, has an attractive content display and is easy to understand and can be used in the learning process of the quilling technique.

Keywords—multimedia, quilling technique, tutorial, video

I. INTRODUCTION

The development of education, directly or indirectly, is currently influenced by developments in science and technology. The rise of various technological products that can be used in the world of education provides opportunities for educators to improve the quality and quantity of education. One of them is the use of technology in making multimedia learning. Multimedia learning can interact with various types of media (text, images, sound, video and animation) so that learning materials can be presented effectively and interactively. Multimedia assisted learning, the level of mastery of material achieved by students is adjusted to their abilities. After mastering a material, it will proceed to the next material, this will help solve the problems of old students in capturing learning material. Learning that has implemented multimedia is expected to increase student interest and motivation in improving learning outcomes.

The results of research by the British Association for Vedic Astrology (BAVA) in the United States [1] regarding the importance of multimedia in the teaching and learning process stated: "If a teacher or teaching staff only uses verbal symbols it only absorbs 13% and it does not. Will last a long time, while those who use multimedia can reach 64% to 84% and last longer. "Multimedia technology has great potential in changing the way a person learns and obtains information. Multimedia learning is currently being developed, one of which is through the development of multimedia video tutorials. Multimedia learning video tutorials are a tool or media used in the learning process that can display a composition of images or a series of moving images to describe an object or process used to describe activities so that they are easy to remember and interactive and communicative. Interactive multimedia presents learning material in the form of audio-visual, according to Swank, R. C revealed that "the emphasis on the effectiveness of visual material in learning [2], it is estimated that about 40% of our concepts are based on visual experience, 25% on hearing, 17% for tactile, 15% for miscellaous organic sensations and 3% for sense of smell. The statement shows that the process of receiving information is widely influenced by visual (sight) and hearing (hearing). Multimedia learning that is used to facilitate communication in the teaching and learning process is pursued optimally to be able to foster creativity and motivation in learning activities to improve the quality of education. One that is used in learning and is believed to be more interesting for students in lectures is the multimedia video tutorial Interactive multimedia is multimedia that is equipped with a controller and can be operated by the user, so that the user can choose what he wants for the next process. Through multimedia, teachers can present information innovatively and motivate students to learn quickly [3], meaning that through multimedia educators can present information in innovative

and motivating ways. Students to learn faster. So that by using multimedia, the learning process can be carried out anywhere and students can learn independently. Multimedia video tutorials are also an alternative means of optimizing computer technology-based learning activities. This multimedia tutorial application presents learning material with a more attractive and informative appearance, so that it is hoped that students can facilitate and increase student interest in learning, especially in learning white embroidery.

Based on the results of preliminary studies, the process of making quilling designs needs to be supported by media that attracts students to learn, be active and able to learn independently under the guidance of lecturers. Researchers will try to develop video-based learning multimedia tutorials that will be packaged in tutorial format, because the tutorial format will provide an easier and more enjoyable learning experience, multimedia learning videos can be repeated in certain sections to make them more focused.

The background description above is the rationale for the author in conducting research on the Multimedia Development Tutorial Video on learning quilling techniques. The use of multimedia technology can be an alternative to facilitate the learning process for students, so that learning objectives can be achieved and the quality of student learning outcomes in making quilling techniques.

II. LIMITATION AND PROBLEM FORMULATION

Multimedia learning is a learning model because it has the ability to accommodate multimedia users and users, without the guidance of people 1 The use of appropriate multimedia learning is expected to increase learning motivation, can support the effectiveness and efficiency of learning, and can increase the achievement of learning objectives that have been set, especially in the quilling technique course. In this case the Multimedia Development Video Tutorial on Learning Quilling Techniques?

III. RESEARCH PURPOSES

Specifically, the research objectives to be achieved are: The design of the quilling technique learning program for the millinery accessories course with an emphasis on optimizing the use of multimedia video tutorials in the learning process. Develop learning quilling techniques in multimedia videos, hitch include:

- The compilation of the quilling technique components is carried out in a systematic and structured manner

- The basic elements of a multimedia design video tutorial on learning quilling techniques.

- Developing multimedia videos by implementing effective and efficient video tutorial component components

- Editing and rendering multimedia video tutorials and packaging software formats that can be used in quilling techniques.

- Multimedia video trials in learning quilling techniques.

IV. RESEARCH METHODS

Quilling technique learning model, using research and development methods (Research and Development). This study uses a Research and Development (R & D) model. According to Plomp, 1997 research design in development research is needed. The general model of solving educational problems proposed by Plomp, consists of the initial investigation stage, the design stage, the construction stage. and the stages of testing, evaluation and revision (test, evaluation and revision), and implementation (implementation). This study uses the Research and Development research method to produce products that will be used in the world of education through a scientific process that ends with a validation stage. The Research and Development stages are adjusted to the multimedia development process in the quilling technique learning video tutorial.

V. FINDINGS AND DISCUSSION

In the validation stage, the assessment of the white multimedia embroidery tutorial video by material experts and multimedia experts. The video tutorial for multimedia quilling techniques was validated by quilling technique material experts and multimedia video tutorial experts, and tested on users, namely students of the PKK FPTK UPI Class of 2017 Education Study Program who had contracted the Milinary Accessories course, the validation stage was carried out to determine the shortcomings and levels of multimedia tutorials already made. Validation by Material Experts Validation of material in multimedia video tutorials on quilling techniques carried out by material experts includes several aspects, namely: general aspects, learning quilling techniques, learning tools and materials, learning basic techniques for making quilling techniques, tools and learning materials for quilling techniques. And learn to make quilling techniques. The following is the data obtained from the results of material validation:

A. Results of Validation by Material Experts

The data show that the results of the validation of the assessment aspects of the quilling technique learning material by material experts have an average percentage of 97.26% which is in the Eligible category. Continuously the percentage of material feasibility can be seen at the following scale: 97.26%

There are 8 points of assessment for the validation aspects of the material for making quilling techniques, 1 point for assessment of general aspects and 7 points for assessment of learning stages in the process of making white embroidery. Point 1, regarding general aspects, it is obtained a percentage value of 100% which can be categorized as feasible. Point 2

regarding the quilling technique learning material obtained a percentage value of 100% which is categorized as feasible. Point 3, regarding the tools and materials for learning the quilling technique, the percentage value is 100% which is categorized as feasible. Point 4, regarding the learning of the technique of making leaf motifs in the quilling technique, the percentage value of 96.85% is obtained which is categorized as feasible. Point 5 about learning the technique of making flower motifs in the quilling technique obtained a percentage value of 93.75% which is categorized as feasible. Point 6, regarding learning the basic techniques of making rolls in the quilling technique, the percentage value is 90.62% which is categorized as feasible. Point 7, regarding learning the technique of making round motifs, the percentage value is 100% which is categorized as feasible. Point 8 regarding learning the oval shape of the quilling technique obtained a percentage value of 96.87% which is categorized as feasible. In general, the results of the validation of the quilling technique learning material which are presented in the multimedia video tutorial of the quilling technique show the results that are "feasible" to be used as learning material.

B. Multimedia Expert Validation Results

The data shows that the multimedia video tutorial for quilling techniques obtained validation results from the multimedia expert validator with an average value of 83.25% which is categorized as suitable for use as a multimedia learning video tutorial for making quilling techniques. Continuously the percentage of eligibility for multimedia can be seen at the following scale: 83.25%

C. Results of Validation II by Multimedia Experts

The data shows that the average percentage result is 90.28%, including the category worthy of being used as multimedia learning with multimedia notes that are more interesting and clearer than the previous one. As a reference the continuum can be shown as follows: 90.28% The evaluation aspect of the multimedia validation of the white embroidery video tutorial has 5 points, with the acquisition of each value as follows: Point 1, the general appearance of the multimedia video tutorial on the quilling technique received a score of 91.6%, including the feasible category. Point 2, the display of multimedia videos in the presentation of the quilling technique material obtained a score of 87.5%, including the appropriate category. Point 3, the multimedia video display of the explanation of tools and materials got a score of 90%, including the appropriate category. Number 4, the multimedia video display makes the design score 90% including the appropriate category and point 5, the multimedia display tutorial for making quilling techniques gets a score of 95% including the appropriate category. Judging from the acquisition of values in each aspect of the assessment in general, the category is feasible, so that the multimedia video tutorials of the quilling technique can be categorized as feasible to be used as multimedia learning in the Millinerary Accessories course.

D. User Test Results

The data shows that the white embroidery multimedia video tutorial that has been tested on users has a validation value of 94.16% which is categorized as feasible to be used as multimedia learning about making quilling techniques in the Milineris Accessories course. On a continuous basis, the percentage of eligibility for multimedia use can be seen at the following scale: 94.17%

E. Revision Stage

This stage is carried out so that multimedia is made more communicative, interactive, and easy to understand according to input from experts. Based on the input provided by the validator after validating the multimedia video tutorial on the quilling technique, there are several inputs and things that need to be improved, including:

1) Material expert:
- The explanation in the theory part can be shortened to avoid burnout.

- Use of easy to understand terms.

2) Media expert:
- Add text to video tools and materials as well as to video making quilling techniques.

- About the creator's menu icon is made fully animated.

VI. CONCLUSION

Based on research on making multimedia video tutorials for quilling techniques that have been done, it can be concluded from the research objectives, namely:

- The preliminary study identifies the use of instructional media in the military accessories course, especially the quilling technique material. Based on the data obtained, there is no use of multimedia video tutorials as a learning medium in the delivery of quilling technique material.

- Tutorial on making multimedia quilling techniques starting from design formulation, material gathering, multimedia creation, publishing and packaging. The design formula includes storylines and storyboards, synopses, scenarios, scripts and making validation instruments for multimedia experts, material experts and users. The tutorial stage for making quilling technique videos begins with a presentation of quilling technique material regarding the concept of quilling techniques, video tools and materials as well as a video on the process of making quilling techniques.

- Conducting a validation test by multimedia experts and material experts aims to find out the errors and feasibility level of multimedia from video tutorials that have been made to be used as learning media. Video

tutorial video tutorials of quilling techniques that have been validated were tested on Fashion Education student's class of 2016. This aims to determine the level of student understanding of the making of quilling techniques.

- The results of the multimedia validation of the quilling technique tutorial videos from the multimedia tutorial media expert of the quilling technique showed an average percentage of 83.25%, so that the second trial was carried out after going through revisions and obtained an average percentage of 90.28% which was categorized as feasible. Revision of multimedia experts, namely revisions to add text to video tools and materials as well as video quilling techniques and menu icons about the maker to be fully animated. The results of the material expert validation show that the percentage of 97.26% is in the feasible category with input and revision: the explanation in the theory section can be shortened to avoid saturation,

- Validated multimedia was tested on 6 users, namely the 2017 Education Class Education Study Program students who had contracted the Milineris Accessories course, the validation results showed a percentage of 94.17% including the category worthy of being used

REFERENCES

[1] K. D. Rusman, C. Riyana, Pembelajaran Berbasis Teknologi Informasi dan Komunikasi : Mengembangkan Profesionalitas Guru. PT. Raja Grafindo Persada: Jakarta, 2011.

[2] D. Ashaver, and S.M. Igyuve, "The use of audio-visual materials in the teaching and learning processes in colleges of education in Benue State-Nigeria," IOSR Journal of Research & Method in Education, vol. 1, no. 6, pp. 44-55, 2013.

[3] W. Wiana, M. S. Barliana, and A. A. Riyanto, "The effectiveness of using interactive multimedia based on motion graphic in concept mastering enhancement and fashion designing skill in digital format," International Journal of Emerging Technologies in Learning (iJET), vol. 13, no. 02, pp. 4-20, 2018.