



Development Oof Audio-Visual Learning Media to Increase the Ability of Makeup Skill Demonstration

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Abstract

The purpose of this study is to develop audio-visual learning media to increase the ability to demonstrate fantasy makeup skills and analyze the feasibility, practicality, and effectiveness of audio-visual media for fantasy makeup courses in the Beauty Education Study Program at Universitas Negeri Semarang. This study applied the Research and Development method with the ADDIE model, which consists of five stages, namely analysis, design, development, implementation, and evaluation. The research subjects were 5th semester students of the cosmetology education study program totaling 30 students. The analysis of this research is audio visual media of wound character makeup. The instruments used by researchers were interview guidelines, media practicality questionnaires and questionnaires to measure the level of media feasibility. In order to test the validity, content validity test through expert opinion and questionnaire reliability using the KR20 formula were used. Data collection used one group pre-test post-test design which was then analyzed for normality and homogeneity tests. Based on the feasibility test, practicality test, and effectiveness test of audio-visual media to improve the ability to demonstrate fantasy makeup skills developed, according to the responses of media experts and material experts, the media is very feasible. Based on the responses of lecturers and students as user responses, the practicality of the media obtained very practical assessment criteria. From the effectiveness test in the experimental class, the media obtained quite effective and significant criteria to improve the ability to demonstrate fantasy makeup skills in the Beauty Education Study Program of Universitas Negeri Semarang.

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INTRODUCTION

The rapid development of information technology in the current era of globalization cannot be avoided, its influence on education sector is inevitable. Global demands require the education sector to always adapt technological developments to improve the quality of education. Education issue in Indonesia such as the quality and relevance of education, access and equity in education, education management, cannot be resolved without the help of Information and Communication Technology (ICT). The presence of Information and Communication Technology (ICT) in the education sector is not only as a subject or course but has merged into all subjects by utilizing it in the learning process (Siahaan, 2012:13).

The development of learning media is needed to overcome problems in learning process by utilizing information and communication technology (Bastaman, Sampurna, and Sholikin, 2021). According to Heinich in Azhar Arsyad (2011: 4) learning media are intermediaries that carry messages or information for instructional purposes or contain teaching intentions between sources and recipients. Learning media must be effective, relevant, efficient, and can actually be used or applied in learning, as well as contextual selection and the use of learning media must prioritize social and cultural aspects of students.

According to Singh et al (2020: 106) in their international journal, audio-visual media is a tool that can be seen by students and can be touched by students. Audio-visual media also involves two human senses, namely the sense of hearing and the sense of sight which occur simultaneously. Audio-visual media can also be in the form of images, videos, graphics and sound that can make it easier for students to grasp learning material.

Fantasy makeup learning utilizes information technology as one of the ways to make the audio-visual learning process interesting. Fantasy makeup learning is one of the courses in the Beauty Education study program using the OBE curriculum which has been formed in CPMK (course learning achievement), which is a course in semester 5. This Fantasy Makeup Course has two kinds of material, namely makeup fantasy and character makeup in this case the researcher takes

character makeup because students learn to make wound makeup so that the client looks like he or she has a defect in his or her appearance. This defect can vary, such as bruises, scars, broken nose, abnormal eyes, burns, new wounds and so on. Learning by using audio-visual learning media will foster students' creative sense and make it easier for students to study at any time in the learning process.

The Outcome-Based Education (OBE) curriculum at Universitas Negeri Semarang in the Beauty Education Study Program is designed to equip students more in line with CPL (graduate learning outcomes) so that students are required to be skilled, ethical and the output is graduates to become teachers, entrepreneurs, and work in companies, forming awareness, developing national values, developing inspiration, and linking local events with national events in a series of Indonesian history. The application of the OBE curriculum which emphasizes the continuity of the learning process in an innovative, interactive, and effective manner influences the entire educational process from curriculum design; formulation of learning objectives and achievements; educational strategy; learning method design; assessment procedure; and educational environment or ecosystem.

The results of the initial survey and interviews conducted by the researchers on the lecturers and students of the PKK Beauty Education Study Program, FT UNNES, showed that there were problems related to fantasy makeup learning, namely: (1) the lecturer had conveyed the learning objectives, but sometimes the lecturer conveyed the learning objectives only at the beginning of the semester so that it needs to be improved, (2) the learning material provided on campus is only focused on fantasy makeup material consisted of wound characters, clowns, parents, and others (3) the methods used are question and answer, discussion and demonstration, summarizing, presenting and also the use of discovery learning methods but the steps taken by educators were not in accordance with the chosen method so that it tended to make students to be bored, the lack of varied methods can be used as material for developing a media, (4) the learning media used was power point (PPT) only so it caused the learning activity to be less

interesting, (5) learning resources used were reference books, and the internet, learning will be more varied if more learning resources and learning media that support it are used, (6) teaching materials used were modules so that the lack of teaching materials caused the completeness of the material in teaching materials to be inadequate, (7) the evaluations used were written tests, oral tests, presentations, practice and assignments.

Based on the problems above, the researcher is interested in conducting research on the development of audio-visual learning media to increase the ability to demonstrate fantasy makeup in Beauty Education Study Program, Universitas Negeri Semarang.

METHODS

The present study is a type of research and development study. According to Sugiyono (2007: 407) research and development aims to find, develop and validate useful new products according to the needs through program development. One of the R&D research procedures developed by Dick and Carry (1996) is the ADDIE development model. The ADDIE development model is a development model that is based on an effective, dynamic system, and supports learning media development procedures. In this study, it has been developed a learning media product in fantasy makeup courses. This development research procedure refers to the ADDIE (Analysis, Design, Development, Implementation, Evaluation) research and development steps combined with the

competency-based training model developed by William E. Blank.

The research was conducted at the S1 Beauty Education Study Program, Universitas Negeri Semarang in odd semesters in November 2021. The data collection techniques in this study were observation, interviews, questionnaires, tests, and documentation studies. The research subjects were divided into two subjects, namely validity trial subjects and implementation subjects. The subjects of the validity trial consisted of audio-visual expert lecturers on fantasy makeup and material expert lecturers with academic criteria and for the subject of implementation of instructional media were students of beauty education study program at Universitas Negeri Semarang with a total of 30 students and lecturers of fantasy makeup courses. The students and lecturers were subjected to trials and filled out assessment questionnaires on audio-visual learning media, if there were suggestions for improvement, the researchers made improvements and the results of the improvements were tested again on students.

RESULT AND DISCUSSION

A. Feasibility Test Analysis

Data analysis on the results of the audio-visual media feasibility test used an assessment sheet that had been observed by the validator. The scoring of the feasibility test of fantasy makeup audio-visual media was responded by 2 media expert validators and material experts in Beauty Education study program, which were consisted of media practitioners, lecturers, and experts fantasy makeup. The following is the overall score for each aspect carried out by all validators:

Table 1. Overall Score on Each Aspect of the Validator

No	Criteria	Validator				Average	Category
		Media Expert		Material Expert			
		1	2	1	2		
1	Graphic feasibility aspect	4.50	4.31	-	-	4.40	Very feasible
2	Content feasibility aspect	-	-	4.80	4.00	4.40	Very feasible
3	Presentation feasibility	-	-	4.60	4.00	4.30	Very feasible
4	language feasibility	-	-	4.40	4.00	4.20	Feasible
5	Contextual assessment aspect	-	-	3.60	4.40	4.00	Feasible
Expert overall average						4.26	Very feasible

Source: Researcher's Document

Based on the data above, the overall average is 4.26 with very feasible criteria, thus the fantasy makeup audio-visual media is declared valid and very feasible. Based on the results of this validation, it can be concluded that the audio-visual media for fantasy makeup is valid with revisions and does not require significant changes and is suitable for use as an e-module for fantasy makeup courses.

B. Data Analysis Requirement Test

Data analysis requirements test is needed to find out whether data analysis for data testing in the present study can be used or not. Analysis of the effectiveness test (t test) requires that the data come from populations that are normally distributed and the groups compared are homogeneous. Therefore, the analysis of the effectiveness test (t test) requires a normality test and data homogeneity test.

Normality Test Results

The normality test has the goal of knowing whether the data used in both the experimental class and the control class is normally distributed or not, with a significant level of 0.05. If the score is significant > 0.05 , the data is normally distributed. If the significant score < 0.05 then the data is not normally distributed. The data normality test was carried out with IBM SPSS software according to Kolomogorof Smirnov, the results of the pre-test and post-test data for the experimental class and control class can be seen in the table below:

Table 2. Results of the Questionnaire Normality Test on the Effectiveness of Audio-Visual Media

Class		Sig. Kolmogorof-Smirnov	Sig. Shapiro-Wilk
Pre-Test	Experiment	0.220	0.186
	Control	0.220	0.206
Post-Test	Experiment	0.220	0.886
	Control	0.220	0.256

Source: Calculation Results (2021)

Based on the table above, the normality test on audio visual makeup media for the character of wounds in beauty education study program students has the lowest significance value (Sig.) of the Kolmogorov Smirnov normality test for the pre-test group of $0.186 > 0.05$ and for the post-test group $0.256 > 0.05$. Therefore, according to the

use of audio-visual media in learning wound character makeup in the Kolmogorov Smirnov normality test, it can be concluded that the data is normally distributed.

Homogeneity Test

This homogeneity test uses the homogeneity of variances test with a significant $\alpha = 0.05$. If the score is significant > 0.05 then the data is homogeneous and if the score is significant < 0.05 then the data is not homogeneous.

Table 3. Media Effectiveness Questionnaire Homogeneity Test Results

Class		Lavene Statistic	Sig.
Pre-Test	Based on Mean	0.689	0.876
	Based on Median	0.525	0.842
	Based on Median and with adjusted df	0.525	0.842
	Based on trimmed mean	0.488	0.795
Post-Test	Based on Mean	1.808	0.172
	Based on Median	1.902	0.190
	Based on Median and with adjusted df	1.902	0.190
	Based on trimmed mean	1.826	0.183

Source: Calculation Results (2021)

Based on the results of the homogeneity test on the base of mean Pre-Test, it showed a significant value of 0.876, which means data > 0.05 , so it can be concluded that the data is homogeneous, while the score on the base of mean Post-Test shows a significant value of 0.183, which means data > 0.05 , so it can be concluded that the data is homogeneous.

C. Audio-Visual Media Practicality Test

The practicality test phase of the audio-visual media is carried out to determine the practicality of the product being developed. The practicality test of audio-visual media for beauty education was carried out by lecturers and students to obtain evidence from the results of filling out a response questionnaire which showed that audio-visual media was used in the present study.

The practicality test was carried out by validating user responses (lecturers and students) related to the practicality of audio-visual media for beauty education carried out by lecturers and students of the Beauty Study Program of at Universitas Negeri Semarang, as follows:

Table 4. Feedback from Lecturers and Students as Audio Visual Media Users

Indicator	Statement	Response		
		Lecturer		Student
		1	2	Total Score
Interest	Audio Visual Media Display of Wound Character Makeup	1	1	28
	This media can make learning more interesting when it is used	1	1	35
Material	Audio Visual Media makes learning more enthusiastic	1	1	24
	Material delivery in the Audio-Visual Media in accordance with the circumstances that exist in daily life	1	1	25
	The material presented in the Audio-Visual Media is easy to understand	1	1	39
Language	Presentation of material in audio-visual media makes it easier for me	1	1	35
	The sentences and language used in the module are clear and easy to understand	1	1	32
	The language used in Audio Visual Media is simple and easy to understand	0	1	31
Competence	The steps for preparing the wound character makeup are coherent and easy to understand	1	1	25
	Competency delivery and opportunity observation presented in wound character makeup keeps me motivated	1	1	27
Total (Σ)		9	10	301
Grand Total (response 1 + response 2)			19	
\bar{x} Average = (Grand Total) *100%			92%	85.2%

Source: Calculation Results (2021)

Reproducibility Coefficient Calculation (K_r) is $K_r = 1 - e/n$.
 K_r (Lecturer) = $1 - \text{Number of error values} / (\text{number of statements} \times \text{number of respondents})$
 $= 1 - \frac{4}{(18 \times 34)} = 1 - 0,074 = 0.92$
 K_r (Student) = $1 - \text{Number of error values} / (\text{number of statements} \times \text{number of respondents})$
 $= 1 - \frac{64}{(18 \times 34)} = 1 - 0,09 = 0.91$

According to Singarimbun et al (2014: 118-119) if the score for the Reproducibility Coefficient (K_r) has a value of > 0.90 , it is declared eligible. The results of the calculation of the reproducibility coefficient or K_r in this study obtained a Lecturer's K_r score of 0.92 and Student's K_r Score of 0.91 and had an average \bar{x} score of $K_r = 0.92$ indicating that the audio-visual media of wound character makeup had been very practical to be used because it meets practical requirements (> 0.90).

D. Audio-Visual Media Effectiveness Test

Data analysis in the present study is by testing the research instrument using the validity test and reliability test, then for the prerequisite test before carrying out the effectiveness test using the normality test and data homogeneity test.

Furthermore, to test the effectiveness of the audio-visual media of wound character makeup in the form of the N-Gain score test and the independent sample t-test.

N-Gain Test

The N-Gain test is carried out by the gain normalization test (N-Gain). The N-Gain test is calculated based on the difference between the Pre-Test and Post-Test scores. The formula for determining N-Gain with an ideal score of 100 is as follows: $N - \text{Gain} = \text{Result of the calculation of the N-Gain test}$. Based on the results of the calculation of the N-Gain score test in this study, it shows that the average N-Gain score for the experimental class is 82.37% with the minimum N-gain score for the experimental class being 66% and the maximum N-gain score is 100 %. Meanwhile for the control class it is 37.28% with a minimum control class score of 21.82% and a maximum N-gain score of 58.93%. The score is then interpreted with the following N-Gain effectiveness interpretation table:

Table 5. N-Gain Score Interpretation

Percentage (%)	Interpretation
<40	Ineffective
40-55	Less effective
56-75	Effective enough
>76	Effective

Source: Arikunto (2010)

Based on the table of interpretations of the effectiveness of the N-Gain score above, it can be concluded that the average Gain score for the experimental class is 82.37% so that it can be concluded that the application of Audio Visual Make Up Media for Wound Characters is effective for improving student skills. Meanwhile, the conventional method shows that the average Gain score for the control class is 37.28%, which is not effective for improving the skills of beauty education students at Universitas Negeri Semarang. The grouping of the N-Gain score acquisition data for each experimental class and control class is based on the category formula for interpreting the effectiveness of the N-Gain score <40%, then grouping code 1 is coded, N-Gain score 40-55% is coded grouping 2, score N -Gain 56-75% is coded for grouping 3, N-Gain score > 76% is coded for grouping 4.

Discussion

The result of this development research is in the form of development of audio-visual media of wound character makeup. The process of compiling the media is made in stages to produce proper audio-visual media, a series of validations are carried out from media experts, material experts, users, and the effectiveness of the users. Validation of media experts, material experts and users, is carried out directly in the field to obtain data for the purposes of product revision in the form of wound character makeup audio visual media.

The feasibility study on the results of the development of audio-visual media is based on the results of the assessment sheets for the responses of Media Experts, namely from Lecturers and Material Experts from experts in the field of beauty, while on the practicality test by users of audio-visual media (students and lecturers) and test the effectiveness of audio-visual media. The validity of the developed audio-visual media

studied in this study includes content validity in the form of compatibility between the concepts presented and concepts and theories as well as construct validity, namely the suitability of the transformation or translation of concepts and theories into an operational form. After conducting a validation test, it can be concluded that audio visual media has become the final product and is very suitable for use by students to improve their ability to demonstrate fantasy makeup.

The results of the feasibility test, the graphical feasibility aspect criteria get an average score of 4.38 with very feasible criteria, the content feasibility aspect gets a score of 4.40 with very feasible criteria, the presentation feasibility aspect gets a score of 4.30 with very feasible criteria, the linguistic feasibility aspect gets a score of 4.20 with the appropriate criteria, the contextual assessment aspect gets a score of 4.00 with the feasible criteria, of all the aspects that have been mentioned it is included in the media and material feasibility aspects, after the score is averaged from the results of validation, audio-visual media gets an average score of 4.26 with very decent criteria.

Audio-visual learning media is appropriate because the presentation of material is systematic, the concept is structured and accurate, the material provided is complete and extensive, important material information has been covered, and presents material according to achievement indicators. Furthermore, the media which has been categorized as appropriate by material experts and media experts, was tried out on 30 students. Lecturers and students filled out practical learning media questionnaires. The results of the student practicality questionnaire obtained an average of 87.64% while the lecturer practicality questionnaire obtained an average of 95.57%. Based on these results, it can be said that audio-visual learning media is very practical and suitable for research and widely used. The results of the feasibility of audio-visual media are in line with the results of Pratama and Suyitno's research (2018: 27) that the audio-visual learning media developed is called feasible with a percentage of 80%. According to Suyitno and Syakirun (2018), the audio-visual learning media developed is stated to be good because the explanatory text in the media is easy to understand with a percentage

of 91%, the media expert test states that the media is good with a percentage of 83%, and the material expert test states that the media is good with a percentage of 94 %.

The results of the practicality test in this study were carried out by lecturers and students of the Beauty Education Study Program. User validation at this stage, the interest indicator gets a score of 86% with very practical criteria, the material indicator gets a score of 92% with very practical criteria, the language indicator gets a score of 89% with very practical criteria, the competency indicator gets a score of 86% with the criteria very practical, based on all the indicators that have been mentioned, it is included in the aspect of student responses, after the average score of the validation results the user gets a score of 88% with very practical criteria.

Based on the overall results of the practicality questionnaire it was stated that audio-visual learning media is very practical to use because audio-visual learning media is easy to use, easy to understand, easy to move and carry everywhere, clear, and can be used in the field in line with Annisa et al (2020:76) which states that the purpose of the practicality test is to find out the ease of users in using learning media. The results of the practicality of audio-visual media research are in line with the results of Riyanto's research (2018: 79) which states that audio-visual learning media fulfills practical value in its use.

Audio-visual media effectiveness test, based on data analysis starting from the prerequisite analysis test, it was discovered that the experimental class and control class are normally distributed and the same or homogeneous, after testing the prerequisite analysis, then data analysis was carried out by carrying out the N-gain test to determine the effectiveness of fantasy makeup audio-visual media, obtained an average N-gain score the experimental class is 82.37%, while the average N-gain score for the control class is 37.28%. Before the t test was carried out, the N-Gain score was tested once again using the normality and homogeneity test, where the results have a minimum error rate for educational and social research standards of 5%, so the value of the normality and homogeneity test results must be > 0.05 . Furthermore, the independent sample t test was tested to determine the significance of the

fashion design e-module assisted by the Adobe Illustrator application and obtained a value of $0.284 > 0.05$. It can be concluded that the variance of the experimental class data and the control class is the same or homogeneous, while based on the significance $0.000 < 0.05$, thus it can be concluded that there is a significant (real) difference in effectiveness between learning using fantasy makeup audio-visual media compared to conventional methods to improve learning outcomes in fantasy makeup courses.

The results of the research on the effectiveness of audio-visual learning media show differences in the average of pre-test and post-test score and the increase in learning outcomes after using audio-visual learning media. The research results of Cahyono, Khumaedi, and Hadromi (2021: 613) also state the same thing that audio-visual media can be used to increase student competence.

Audio-visual media of wound character makeup can be used by students of the beauty education study program at Universitas Negeri Semarang. This media category is very feasible, very practical, quite effective, and significant for improving the skills of wound character makeup. The results of this study are in line with previous studies which state that audio-visual media can improve students' skills significantly.

CONCLUSION

Based on the results of the development research and discussion of the development of wound character makeup audio-visual media in fantasy makeup courses, the conclusions can be drawn as follows:

- a. Fantasy makeup audio-visual media is very appropriate to be used as teaching material. This is based on the feasibility test obtained from the Media Expert and Material Expert assessment sheets. The average score obtained from the responses of material experts and media experts is 4.26 with very appropriate criteria, thus this fantasy makeup audio-visual media is declared valid and very feasible. Based on the results of the validation, it can be concluded that the audio-visual media for fantasy makeup is valid with revisions and does not require a significant

revision and is suitable for use as teaching material for students of the Beauty Education Study Program.

- b. The developed fantasy makeup audio-visual media is very practical to use as a support for learning. This is based on responses from media users, namely lecturers and students at Beauty Education Study Program of Universitas Negeri Semarang (UNNES) with an average practicality test score of \bar{x} = 88% with very practical criteria.
- c. The developed fantasy makeup audio-visual media is used effectively. This is based on the effectiveness test of character make-up practices, in the form of an N-Gain score test and an independent sample t-test. Based on independent test sample t test, it can be concluded that the experimental class and control class are the same or homogeneous, before being treated using audio-visual media fantasy make-up. In the present study, the distributed data after being tested using t test is quite effective and significant.

SUGGESTION

Based on the results of the research that has been done, the researcher has several suggestions related to the development of fantasy makeup audio-visual media to improve demonstrating skills, as follows:

- a. For Beauty Education Study Program, audio-visual media for fantasy makeup can be used as a support for a more varied and interesting learning process so it can increase students' interest.
- b. For lecturers, fantasy makeup audio-visual media can be used as interesting teaching materials, making students active, and the media can be used as a reference for students on making teaching materials when they enter job market as teachers.;
- c. For the Vocational Education Study Program, it is suggested that this program need to develop learning media in any form related to vocational or vocational education, so that it can become a reference for students and lecturers.
- d. For other researchers, it is hoped that this research can be taken into consideration for

conducting further study. It is also necessary to develop further research with a wider scope, so that it can be better and more feasible to implement.

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