

Development of Fantasy Make-Up E-Book with Collaborative Project Based Learning Model

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Abstract. This study aims to produce a fantasy make-up electronic book product by applying a collaborative project-based learning model in the Cosmetology Education Study Program, Faculty of Engineering, UNIMED. The development of the fantasy make-up electronic book is a collaboration product between lecturers and student groups that can be useful in the Hairdressing and Fantasy Makeup courses. The research method used in this study is Research and Development using the ADDIE development model which consists of 5 (five) steps or development phases including: (A) analysis, (D) design, (D) development, (I) mplementation ,and (E)value. Data collection was carried out through expert tests, including tests of media experts, design experts and material experts. After evaluating from the experts, it was followed by testing on the respondents, namely students of the cosmetology study program through individual tests (one to one), small group tests and field tests. This research produce outputs in the form of: Fantasy Makeup E-book with ISBN, Research report copyright, E-Book copyright, and International Proceeding Articles.

Keywords: Collaborative Learning, Project Based Learning, Fantasy Make-up.

1 Introduction

Learning is essentially a process of interaction between students and their environment, resulting in a change in behavior for the better. In this interaction, there are many factors that influence it, both internal factors that come from within the individual and external factors that come from the environment. The learning process needs to be done calmly and pleasantly, this of course guides the activities and creativity of teachers in creating a conducive environment (Mulyasa, 2008: 101) [1]. The learning process is said to be effective if all students are actively involved, both mentally, physically, and socially. Learning is said to be successful and of good quality if all or at least 75% of students are actively involved physically, mentally, and socially in the learning process [2].

The shift from conventional learning to a blended learning system requires lecturers as learning facilitators to be more creative in delivering learning materials. The existence of electronic media can help in the learning process, not least in learning fantasy makeup. Lecturers feel the need to make learning innovations that are in accordance with online learning models and can be accessed at any time according to student needs [3]. The e-book learning media with the collaborative project based learning learning model is the media that is considered the most suitable to help strengthen the blended learning learning system [4]. With the existence of e-book learning media for hairdressing and fantasy makeup, lecturers can more easily explain the material and minimize the abstraction of the material being taught. Project-based learning-based e-book media designed with various images and colors can

represent fantasy hair and makeup materials that are full of colors and pictures. E-books can also explain in detail the stages of implementing fantasy makeup with a predetermined theme [5] [6].

Based on the above background, the researcher intends to carry out this research by developing an e-book learning media based on project based learning on hairdressing and fantasy makeup learning at the Unimed Cosmetology Study Program with the hope that the development of e-book learning media can be used for learning, can support student learning so that it is easier to understand fantasy makeup theory, the basics for doing fantasy makeup well, and add learning references so that it can improve student learning achievement, especially in the current blended learning process [7].

2 Research Method

The research method used is research and development (Research and Development) ADDIE development design model by applying collaborative project based learning. In the product development steps, the ADDIE development research model is considered more rational and more complete. This model can be used for various forms of product development in learning activities such as models, learning strategies, learning methods, media and teaching materials. The ADDIE model development phase consists of five steps/development phases including Analysis, Design, Development or Production, Implementation, and Evaluations.

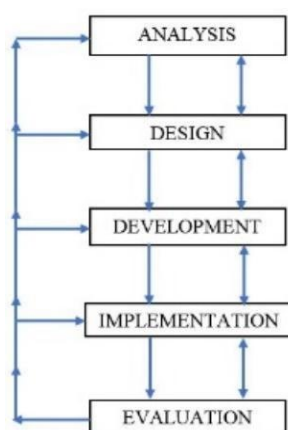


Figure 1. ADDIE Procedure Flowchart

The stages of developing an E-Book with the ADDIE model and Collaborative Project Based Learning are carried out in the following stages:

- 1) Analysis, (analysis of learning problems, analysis of e-book product needs).
- 2) Design (develop a project based learning collaborative learning plan, arrange groups of students involved, create an e-book writing flow).
- 3) Development or production (writing e-book scripts, production of step-by-step photos and videos/tutorials, photo and video editing, finishing e-book, expert review).
- 4) Implementation (one to one trial, small group trial, field trial).
- 5) Evaluation (product revision).

The data to be collected is data about the need for a Fantasy Makeup E-Book in qualitative form. Qualitative data were collected using questionnaires and documentation. Data collection techniques used in this study are as follows:

- 1) Questionnaire, are used to collect data on the need for textbooks given to students, to identify needs and general learning objectives, to collect student opinions.
- 2) Documentation, is used as research evidence. Documentation includes things that can strengthen research statements such as photographs, correspondence and so on.

To analyze the data regarding the feasibility of the Fantasy Makeup E-Book, non-test techniques were used to collect product data, by validating the e-book product, which included an activity process to assess the feasibility of the textbook before being used as a learning resource. The assessment is carried out by validators who have been given confidence in validating the E-Book who are experts in the fields of graphic design, cosmetology, learning design, and several groups of students. All data collected were analyzed using statistical techniques. Qualitative data in the form of very poor, poor, moderate, good and very good statements are converted into quantitative data with a value scale of 1 to 5.

3. Results and Discussion

3.1 Analysis Stage

The first stage in the development of this ebook is to conduct a needs analysis in the PKK department of the State University of Medan by distributing questionnaires to 15 lecturers and 35 students. The questionnaire distributed contained statements in accordance with the conditions of learning activities experienced by lecturers and students at this time, problems, and expected solutions. From the questionnaires that have been distributed, data shows that 100% of lecturers and students stated that learning would be maximized if it was supported by complete learning tools. Ebook is one of the learning tools that can support the teaching and learning process in the classroom, as well as independently wherever and whenever. Needs analysis data can be seen in the following table:

Table 1. Need Assesment

No.	Information Form	Answer	Frequence			Percentage
			Lecture	Student	Total	
1	Lack of maximum in teaching and learning activities	Yes	10	30	40	80%
		No	5	5	10	20%
2	Student learning outcomes are still not good	Yes	7	20	27	54%
		No.	8	15	23	46%
3	Minimal learning resources	Yes	8	27	35	70%
		No.	7	8	15	30%
4	Complete learning tools will maximize learning	Yes	15	35	50	100%
		No.	0	0	0	0%
5	Ebooks become today's ideal learning resource solution	Yes	11	29	40	80%
		No	4	6	10	20%

3.2 Design Stage

At this stage, what is done is to compile a Collaborative Project Based Learning learning design, form student groups, and compile an ebook writing framework. Based on the results of discussions between lecturers and students, this fantasy makeup e-book has the theme of the

story of Gods of Olympus. The story was chosen because it is in accordance with the characteristics of the material in learning Fantasy Cosmetology where there are interesting elements that can be expressed in the form of fantasy makeup designs.

3.3 Development Stage

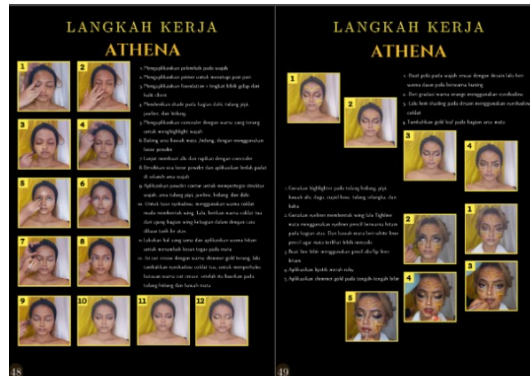


Figure 2. Fantasy Makeup Ebook

The next stage is the development stage which consists of writing e-book scripts, producing photos and video tutorials, editing photos and videos, to finishing e-books. At this stage, validation is also carried out by several experts, including material experts, media experts, and learning design experts.

Table 2. E-Book Score From Material Expert

No.	Aspect	average	Percentage	criteria
1.	Eligibility of Contents	4,33	86%	Very Good
2.	Serving	4,58	91%	Very Good
3.	Linguistics	4,25	85%	Very Good
4.	graphic	4,50	90%	Very Good
Average		4,41	88%	Very Good

At the validation stage of the material expert, it can be seen that score of fantasy cosmetology ebook has excellent quality, this can be seen from the average value which is in the range of $80\% < X < 100\%$ which is 88%.

Table 3. E-Book Score From Media Expert

No.	Aspect	Rata-rata	Percentage	Kriteria
1.	Programming	4,41	88%	Very Good
2.	Display Quality	4,58	91%	Very Good
Average		4,49	89%	Very Good

At the validation stage of media experts above, it can be seen that the score of fantasy cosmetology ebook has excellent quality from the aspect of programming and technical /

display quality, this can be seen from the average value which is in the score range of 80% X100% which is 89% (Very good).

Table 4. E-Book Assessment Score by Learning Design Expert

No.	Aspect	Average	Percentage	Criteria
1.	Feasibility of content	4,50	90%	Very Good
2.	Presentation of Design Quality Information	4,14	82%	Very Good
3.	Presentation of Interaction Design Quality	3.87	77%	Good
4.	Grafic	4.07	81%	Very Good
	Avarage	4.14	82%	Very Good

At the validation stage of the learning design experts above, it can be seen that the score of fantasy cosmetology ebook has excellent quality in terms of content feasibility, presentation of information design quality, presentation of interaction and graphic design quality, this can be seen from the average score range of 80% X100% which is 82% (Very good).

3.4 Implementation Phase

In the implementation stage, the trial was carried out on users of the fantasy cosmetology e-book, such as students of the cosmetology education study program. The trial was carried out in 3 stages there are one to one trial, small group trial, and field trial.

Table 5. Skor One to One Testing

No	Aspect	Average	Percentage	Criteria
1.	Quality of learning material	4,66	93%	Very Good
2.	Technical quality Display	4,49	89%	Very Good
	Average	4.57	91%	Very Good

Based on the table above, it can be seen that the results of the one-to-one trial of the fantasy cosmetology e-book are considered very good, from the aspect of the quality of the learning material and the technical quality of the appearance. The average score obtained is 4.57 or 91%. This value falls into the category of excellent.

Table 6. Skor Small Group Testing

No.	Aspect	Average	Percentage	Criteria
1.	Quality of learning material	4,44	88%	Very Good
2.	Technical quality Display	4,33	86%	Very Good
	Avarage	4.38	87%	Very Good

After the one to one trial, it was continued with a small group trial with a total of 9 student representatives. These small group trials are used as initial experience before the product is piloted into the field. Data on the results of small group trials can be seen in the

table above. Based on these data, the fantasy makeup e-book is rated as excellent, which is 4.38 or 87%.

Table 7. Field Test Score

No	Aspect	Average	Percentage	Kriteria
1.	Quality of Learning Material	4,66	93%	Very Good
2.	Technical quality Tampilan	4,36	87%	Very Good
Avarage		4.51	90%	Very Good

The results of the field trial evaluation of the fantasy cosmetology e-book as a whole both in terms of the quality of the learning material and the aspect of display quality entered the very good criteria, that was 4.51 (90%).

3.4 Evaluation

At this final stage, researchers revised the input from experts to improve the e-book product developed. The evaluations that have been carried out by material experts, media experts, and learning design experts are very useful for the improvement of fantasy cosmetology e-books to make them even better.

4. Conclusions

The purpose of this study is to produce a fantasy cosmetology e-book based on collaborative project-based learning. The fantasy makeup ebook that has been developed has been feasible to use, both according to media experts, experts, materials, and learning design experts. E-book learning media with a collaborative project-based learning model is an appropriate medium to help strengthen the blended learning system. E-book learning media with a collaborative project-based learning model is an appropriate medium to help strengthen the blended learning system. With the learning media for hair styling and fantasy makeup e-book, lecturers can more easily explain the material and minimize the abstractness of the material being taught.

This fantasy cosmetology ebook is one of the external forms resulting from collaboration between lecturers and student groups. Researchers hope that this can not only be applied to fantasy cosmetology courses, but can also be imitated in other courses.

Acknowledgements

The researcher would like to thank all parties involved in this study. This research can be carried out thanks to the Public Service Agency (BLU) Fund of Medan State University in accordance with the Decree of the Chairman of LPPM UNIMED No: 0231 / UN33.8 / PPKM / PD / 2022.

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