Development of Audio-Visual E-Book Learning Media Using Flipbook in Hybrid Learning Based Western Bridal Cosmetology Course

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Abstract. The world of education has changed since COVID-19, where learning is carried out online, and now that the COVID-19 pandemic has decreased, hybrid learning is implemented, namely offline and online learning. Solutions for hybrid learning can be Whatsapp groups, Zoom meetings, Google Classroom, e-learning, and so on. These various applications require lecturers to be creative in delivering learning materials; therefore, researchers use audio-visual e-books using flipbooks as one of the supports for hybrid learning. This study aims to develop audio-visual e-book learning media using flipbooks in the Western Bridal Cosmetology course to provide meaningful and quality learning as well as fun and tedious learning. This research used the R&D method (research and development) with the development of ADDIE, namely analysis, design, development, implementation, and evaluation. The results from the expert team were obtained by 86%, which means that audio-visual e-books using flipbooks are very feasible to use. The results of the trial of 30 students, obtained by 83.3%, produced a positive response with very interesting criteria. The conclusion that can be obtained is that hybrid learning with the development of audio-visual e-book media using flipbooks is declared effective, very interesting, and quality learning because students can understand the material of the Western Bridal Cosmetology concept well.

Keywords: Audio Visual E-book, Flipbook, Western Bridal Makeup

1. Introduction

Online learning is a learning system that does not take place face-to-face but rather through the use of a platform that allows the teaching and learning process to take place even though it is remote.[1]. Face-to-face learning is combined or collaborated with computer and internet technology in hybrid learning.Hybrid learning can cover all fields of science, making it easier for students and teachers to participate in the teaching and learning process [2]. Thus far, in hybrid learning, as many as 75% of lecturers in the Department of Cosmetology and Beauty have delivered the most material using the Zoom application. The zoom application is also more commonly used for learning Western bridal cosmetology because it has a share screen feature that allows it to display power points to deliver teaching materials; however, the obstacle is the zoom that is commonly used by lecturers for lecture methods or the traditional method and the PowerPoint method to make students become saturated with learning the model.As for the video tutorials presented by lecturers in lectures via Zoom, sometimes students do not understand optimally because of network disturbances when using this

application. Moreover, the problem for students who do not have enough to buy internet package credit is that to use Zoom, you must purchase an extra package.

Other applications used to support hybrid learning during a pandemic besides PowerPoint, Microsoft Word, Zoom, Google Meeting, or others are flipbooks. On the flipbook, there is an animation feature or audio, and there is also audio and video audio-visual delivered by the teacher. There are a lot of obstacles experienced during hybrid learning, such as student or teacher network errors or problems [3].

Flipbook is software that has an editing function that is used to add hyperlinks, images, videos, and sounds to support material and the addition of multimedia objects on pages that can be turned over like the original book. [4],[5]. The use of digital flipbook-based e-books is a smart solution to present an interesting, interactive learning atmosphere and support the understanding of students. Digital flipbook-based e-books are in principle similar to manual teaching materials [6], [7].

Taking into account the problems conceived in the background, this study aims to: 1) develop audio-visual e-book learning media products using flipbooks; and 2) analyze the validity, practicality, and effectiveness of audio-visual e-book learning media using flipbooks in the Western Bridal Cosmetology course and the Cosmetology and Beauty Study Program developed in the Tourism and Hospitality Faculty of Universitas Negeri Padang.

The urgency of research in designing audio-visual e-books using flipbooks in western bridal cosmetology courses so that the concept of western bridal makeup can be well understood and every process in the stages of western bridal makeup can be gradually understood by students, as well as an alternative to breaking students' boredom in attending practical lectures in a hybrid manner because this e-book media displays a variety of interesting and practical audio and visual displays to be accessed and used so that learning becomes meaningful and qualified.

2 Research Method

With the development of ADDIE, the researchers used the R&D (research and development) research method. Research and development methods are research methods used to produce certain products. According to Borg and Gall, the research and development model is "a process used to develop and validate educational products." Developmental research is an effort to develop and validate the products used in the learning process [3]. This model uses five stages of development, namely: analysis, design, development, implementation, and evaluation.

The subjects of the study were students from the 2019 class of the Cosmetology and Beauty Education Study Program who took the Western Bridal Cosmetology course, totaling 30 students. The research was conducted at the Department of Cosmetology and Beauty, FPP UNP.

At the analysis stage, researchers used observations in the form of direct observations during western bridal cosmetology learning and made observations in the form of questionnaires to lecturers who teach western bridal cosmetology courses to find out the media or applications used during hybrid learning (online and offline). At the design stage, researchers created an e-book using the Canva application with various design features and developed it using a flipbook accompanied by the addition of audio-visual video.

Furthermore, at the development stage, researchers devise and design e-books using Canva and then upload them to a flipbook to make the file into the form of an e-book; after

that, the researcher gives the product to a team of experts for the validity of the e-book. Use the Likert Scale assessment in Table 1 to obtain validation from the expert team.

Table 1. Validation Assessment Score

Score	Description
5	Very good
4	Good
3	Enough
2	Not Enough
1	Very less

The results of product validation are analyzed using the following formula:

$$P \text{ (data presentation figures)} = \frac{The\ amount\ obtained}{The\ amount\ of\ maximum\ score} \text{ x } 100\%$$

Furthermore, the results of the validation presentation that have been obtained are grouped according to the feasibility criteria so that conclusions can be drawn about the feasibility of the western bridal cosmetology e-book product from Table 2.

Table 2. Product Eligibility Criteria

Average Score	Category
$80\% < x \leq 100\%$	Very Qualified/ Very Worthy
$60\% < x \leq 80\%$	Eligible / Worthy
$40\% < x \leq 60\%$	Quite Worthy
$20\% < x \leq 40\%$	Unworthy
$0\%\ ,\ x \leq 20\%$	Very Indecent/ Very Unworthy

In the implementation stage, researchers conducted product trials for students learning western bridal cosmetology. The last stage is an evaluation in the form of an assessment carried out by students through a questionnaire. The results of the student questionnaire are analyzed, and then the results of the validation presentation are grouped into the criteria for respondents' interest in the product so that conclusions are obtained about the respondent's interest in audio-visual e-book products using the western bridal cosmetology flipbook.

Table 3. Response Questionnaire Assessment

The response	Score
Strongly agree	5
Agree	4
Slightly disagree	3
Disagree	2
Strongly disagree	1

The results of the questionnaire from students were analysed with the formula:

$$P \text{ (data presentation figures)} = \frac{The\ amount\ obtained}{The\ amount\ of\ maximum\ score} \text{ x } 100\%$$

The results of the student response are then grouped into criteria of interest in audio-visual e-books using a flipbook, such as the following table:

Table 4. Criteria for Interest Respond

Average Score	Category
80% < x ≤ 100%	Very Interesting
60% < x ≤ 80%	Interesting
40% < x ≤ 60%	Quite Interesting
20% < x ≤ 40%	Uninteresting
0% , x ≤ 20%	Very Uninteresting

3 Results and Discussion
3.1 Result

In accordance with the development of ADDIE, the results obtained, namely:
a. Analysis

At this point, researchers investigated the learning medium in order to conduct direct observations of lecturers in the western bridal cosmetology course. The average lecturer obtained in the hybrid learning process uses Zoom meeting media with the lecture method, as well as the e-learning platform provided by the campus, and uses the WhatsApp application for smooth communication. Furthermore, the researcher asked students directly about learning western bridal cosmetology and found that students felt saturated and bored with the learning model that was not applied by the lecturer.
b. Design

At the design stage, the application used for animation and writing design uses the Canva application. Furthermore, it is used as an e-book using the Flipbook application, which is a digital book that can be turned around with the addition of videos. Audio-visual e-book products Using this flipbook, there are 90 pages with material on the basic concepts of western bridal cosmetology, tools and cosmetics, face correction, makeup, and bun arrangement for western brides. Here's the western bridal makeup flipbook design:
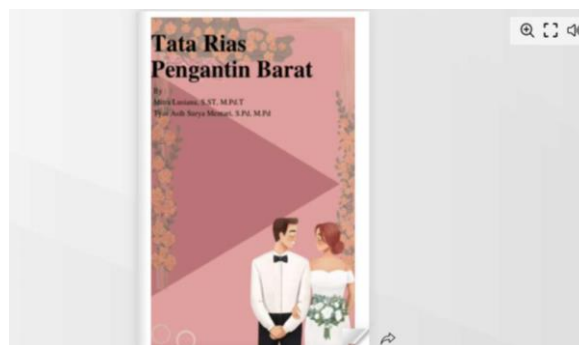

Figure 1. Front-cover

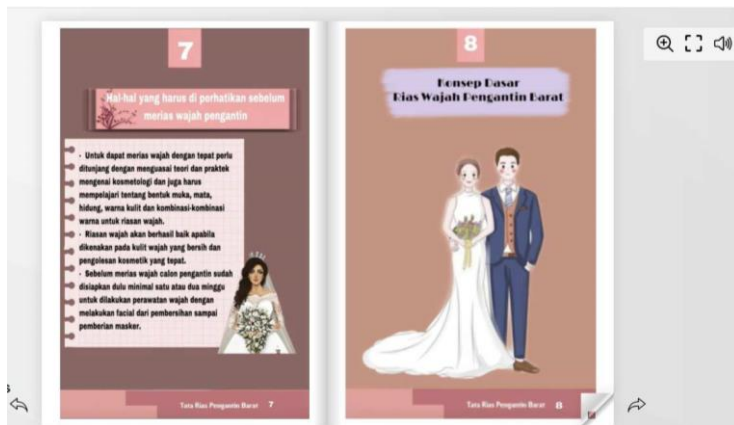**Figure 2**. Learning Objectives

Figure 3. Material Display basic concepts of makeup

Figure 4. Video Material Basic Concepts of Western Bridal Makeup with video views

Figure 5. Video Material on Various Makeup Cosmetics

Figure 6. Video Material of makeup tools

Figure 7. Face correction material

Figure 8. Western bridal makeup materials

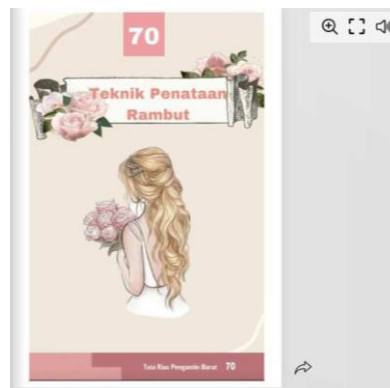**Figure 9.** Working step video of western bridal makeup

Figure 10. Hair styling techniques

Figure 11. Examples of Western Bridal Hairstyling   **Figure 12**. Last cover

In this flipbook design, there are 4 learning videos with material on the basic concept of western bridal makeup in picture 4, various makeup cosmetics in picture 5, makeup tools in f picture 6, and work steps for western bridal makeup in picture 9. Some of these learning videos can be viewed repeatedly by students according to their needs.

c. Development

At this stage of development, researchers validated the product with the expert team—2 lecturers on the material expert team and 2 lecturers on the media expert team—using calculations using the Likert scale. The following are the validation results in Table 5.

Table 5. Expert Team Validation

No	Expert	Assessed aspects			Average
1.	Material Expert	Material Quality	Language Quality	Presentation Quality	
		4,7	4,25	4,83	4,6 (Excelent)
2.	Media Expert	Learning Requirements	Constructive Requirements	Technical Requirements	
		4,0	4,0	4,0	4,0 (Excelent)
Average Score					4,3

Based on the table above, a validity value of 4.3 with an excellent category was obtained for the validation results of the expert team, and then a presentation of values with a formula was carried out, as follows:

$$P \text{ (data presentation figures)} = \frac{The\ amount\ obtained}{The\ amount\ of\ maximum\ score} \text{ x } 100\%$$

$$P \text{ (data presentation figures)} = \frac{4,3}{5} \text{ x } 100\% = 86\%$$

According to the results of the expert team's validity data presentation, namely 86%, bringing an audio-visual e-book using a flipbook is very qualified to use.

d. Implement

At this stage of implementation, the product, which has been declared very suitable for use, was tested on 30 cosmetology and beauty students with hybrid learning classes, namely 15 students who follow face-to-face learning and 15 students who take part in distance learning. During face-to-face learning, lecturers share flipbook links directly, and for students with online lectures, lecturers share flipbook links through e-learning websites and WhatsApp groups. This shared flipbook link can be opened by students anytime and anywhere.

e. Evaluate

In this evaluation stage, researchers distributed a questionnaire in Google Form to 30 respondents. The results can be seen in Table 6 below:

Table 6. Result Data of Respondent

No	Indikator	Result				
		Extremely like	Like	Somewhat unlikely	Unlike	Extremely unlike
1.	Ease of use of audio-visual e-book media using flipbook	26 students	3 students	1 student	-	-
2.	The effectiveness of the required time	24 students	5 students	1 student	-	-
3.	Media appeal	25 students	4 students	-	-	-
	Average	25 students	4 students	0,66		

Based on the table data above, there are an average of 25 students who agree very much. A data presentation is then carried out with the following formula:

$$P \text{ (data presentation figures)} = \frac{The\ amount\ obtained}{The\ amount\ of\ maximum\ score} \times 100\%$$

$$P \text{ (data presentation figures)} = \frac{25}{30} \times 100\% = 83,3\%$$

It can be concluded that 83.3% of students strongly agree with the use of audio-visual e-books using flipbooks on western bridal cosmetology materials, including the category of "very attractive" with indicators of easy-to-use media, the effectiveness of the time required, and the appeal of audio-visual e-book media using flipbooks.

3.2 Discussion

Based on the results of the research above, it shows that the use of audio-visual e-books using flipbooks in western bridal cosmetology can answer the problems that occur in learning western bridal cosmetology, where learning the hybrid system with limited media used by lecturers and less interesting teaching methods, namely only using the Zoom meeting application with the lecture method, makes students feel bored and less attractive to follow learning. With the visual audio e-book media using this flipbook, which has undergone a feasibility test with a result of 86% (very qualified) to be used and also a trial for students with a result of 83.3% (very interesting), this media can be used as an alternative to increasing student interest in learning Western Bridal Makeup material because this flipbook media can be accessed anywhere and anytime, and videos in the media can be played repeatedly. According to Eliana Prisila's research, a digital flipbook learning media sequence for a service practicum guide with a material expert validation value of 82% was declared very feasible, and a media expert validation value of 88% was declared very feasible, with an average of 85% declared very feasible or qualified. [3].

4 Conclusions

Based on research on the development of audio-visual e-book learning media using flipbooks in the western bridal cosmetology course that has been developed, it was concluded that the results of the 86% validity test were obtained, meaning that audio-visual e-book products using flipbooks are included in the category of "very suitable for use." The results of 83.3% of respondents, as many as 30 students, with very interesting categories to use audio-visual e-book media using flipbooks on western bridal makeup were then obtained. This research is unique in that it includes videos that can help students understand the information presented, and the videos can be played back whenever the student wants.

The video used is a tutorial video that researchers have validated before and has also been registered with the IPR (Intellectual Property Right) under the number EC00202180593 so that it can improve the application of audio-visual e-books using this flipbook.

References

[1] Q. UYUN. (2022). Pengembangan Media E-Book Audio Visual Menggunakan Flipbook Materi Trigonometri Kelas Xi Ipa Berbasis Hybrid Learning, *Second. J. Inov. Pendidik. Menengah*, vol. 2, no. 1, pp. 8–17, doi: 10.51878/secondary.v2i1.827.

[2] I. A. Putra. (2015). Orientaasi Hybrid Learning melalui Model Hybrid Learning Berbantuan Multimedia dalam Pembelajaran. EDUSCOPE, vol. 1, no. 1..

[3] E. Prisila, N. Riska, and A. Kandriasari. (2021). Pengembangan Media Pembelajaran Flipbook Digital Panduan Praktikum Sequence Of Service Pada Mata Kuliah Tata Hidang," *Risenologi*, vol. 6, no. 2, pp. 9–16.

[4] A. Fadillah, D. Nopitasari, and W. Bilda. (2021). E-Book Learning Development Media Based on Kvisoft Flipbook Maker, *Kreano, J. Mat. Kreat.*, vol. 12, no. 2, pp. 312–322, doi: 10.15294/kreano.v12i2.31684.

[5] I. W. A. A. Sanuaka, K. U. Ariawan, and I. W. Sutaya. (2017). Pengembangan Media Pembelajaran Electronic Book Interaktif Multimedia dalam mata Pelajaran teknik Animasi 3D dan 2D di Jurusan Multimedia SMKN 4 Singaraja. *Jurnal Pendidikan Teknik Elektro Undiksha*, vol. 6, no. 1.

[6] V. Azizah, Nur and W. Budijastuti. (2021). Media pembelajaran Ilustratif E-Book Tipe Flipbook pada materi Ssistem Imun untuk Melatih kermampuan Membuat Poster. *Jurnal Inovasi Pembelajaran Biologi*, vol. 2, no. pp. 40–51, 2021.

[7] Nanda, H.U., Lutfiati, D., Pritasari, O., Wilujeng, B. (2021). Media pembelajaran Interaktif Berbasis Flipbook pada Kompetensi Dasar Pemangkasan Rambut Teknik Increase Layer di SMK," *Jurnal tata Rias,* vol. 10, pp. 132–144, 2021.