



## Developing a Body Treatment E-Book as a Learning Media for the Body Care Course

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ARTICLE INFO	ABSTRACT
<p><b>Article history:</b> Received: 25 November 2024 Received in revised form: 29 November 2024 Accepted: 15 December 2024 Available online: 15 December 2024</p>	<p>This study aimed to identify the design, development, supporting, and inhibiting factors of a body treatment e-book as a learning medium for the Body Treatment course. The e-book development employed the ADDIE model, which included five stages: analysis, design, development, implementation, and evaluation. This e-book is expected to facilitate students in understanding body treatment materials more effectively and interactively, enabling them to independently practice the skills they have learned. Validation by media and content experts indicates that the e-book is appropriate for use, with feasibility percentages of 95.3% and 95.1%, respectively. The try-out conducted with students also yielded excellent results, with an average feasibility percentage of 92.2%. This development makes a significant contribution to improving the quality of learning, enhancing accessibility to educational resources, and strengthening students' comprehension of body treatment materials.</p>
<p><b>Keywords:</b> Body Care Course; Body Treatment; Learning Media; Ebook</p>	

### 1. Introduction

Learning technology as a discipline, study program, or profession continues to develop rapidly. This progress is characterized by four main features: (1) a systems-based approach, (2) utilization of diverse learning resources, (3) improvement in the quality of human learning, and (4) individual instruction focusing on action-based outcomes (Suparman, 2004: 30-31). According to Miarso (2004: 201), this growth stimulates and strengthens professional development in the field of learning technology. E-books, as part of learning technology development, play a significant role in creating and using digital learning materials. In the are of development, training technologists analyze existing learning issues to design effective learning environments.

The selection of e-book media enables the delivery of material in a detailed manner within a limited timeframe. Sanjaya and Restiyowati (2012) state in their book that an e-book is a textbook converted into a digital format, functioning as a learning medium equipped with applications that include multimedia databases and various learning resources, preserving the multimedia presentation of subjects in book form. E-books have undergone significant development, becoming

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more interactive and evolving into what is now referred to as interactive e-books. The use of interactive media, such as e-books, allows learning activities to focus more on students and facilitates interaction between students and the e-book (Zhang, 2005). Once appropriate media technologies are developed to meet needs, it is advisable to integrate them into the learning process where educational technologies are introduced. The usage domain refers to the application of such technologies, requiring skilled technicians to implement the media for educational purposes. It also involves technical experts who assess the validity and effectiveness of the media. Once validated, the media can then be released for public use.

One example is a learning environment presented in an attractive format that can be accessed repeatedly without limitations of space and time, known as an e-book (Suwarno, 2011). While traditional books typically consist of collections of paper containing text or images, e-books store digital information that may also include text or images. Suarez (2013) argues that e-books can be regarded as educational materials designed for use on digital devices, often incorporating images, text, and animations that can be viewed on electronic devices. E-books are one of the interactive learning tools for delivering information as they can present multimedia illustrations effectively.

According to Mukmin and Zunaidah (2018), interactive multimedia is chosen to optimize the available technical skills and provide effective learning innovations for students. Additionally, Sanjaya and Restiyowati (2012) argue that an e-book is a textbook that can be converted into a digital format, serving as a learning environment with applications containing multimedia databases, various learning resources, recordings, and multimedia presentations.

The Body Treatment course consists of 2 credits and covers comprehensive body care, including treatments for the back, chest, abdomen, buttocks, legs, and arms. This course also includes techniques for hair removal on the legs, arms, and armpits, mastery of various cosmetics used in body care, personal therapist management, and occupational health and safety (K-3) control in body treatments. To support this material, it is essential to develop instructional resources that are easy to understand, accessible, and learnable for students in the Cosmetology program. Therefore, it is highly feasible to package this Body Treatment e-book as a guide containing step-by-step body care instructions, an online learning environment serving as an additional reference for beauty students, and a resource for the broader community interested in learning or deepening their knowledge.

## 2. Method

### 2.1. Type of Research

The Research and Development (R&D) ADDIE model is the method employed in the development of the Body Treatment e-book. According to Mulyatiningsih (2016), the model consists of five steps: analysis, design, development, implementation, and evaluation. The method or model used in this research aims to develop an electronic product that has been tested for its validity, practicality, and efficiency through the Body Treatment e-book.

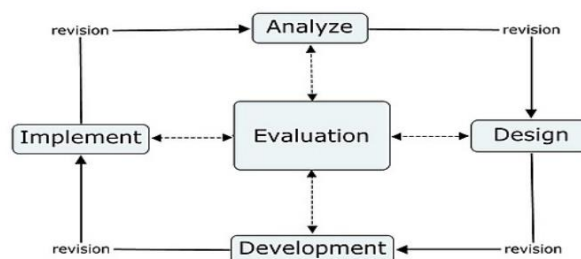


Figure 1. ADDIE Model (Mulyatiningsih, 2016)

## 2.2. Research and Development Procedure

The research and development procedure follows the model developed by Robert Maribe Branch. Based on its educational philosophy, the implementation of the ADDIE model must be student-centered, innovative, authentic, and inspiring. The stages within the ADDIE model are interconnected, requiring the model to be applied gradually and comprehensively to ensure the creation of an effective learning product.

This development follows the procedure developed by Robert Maribe Branch, which consists of five steps. These five steps are: Analysis, Design, Development, Implementation, and Evaluation. Based on these steps, a more detailed explanation is provided to facilitate understanding, as follows:

1. **Analysis:** The analysis step consists of two stages: performance analysis and needs analysis. The first stage, performance analysis, is conducted to identify and classify the issues faced at the campus related to the learning media currently used, and then find solutions by improving or developing the learning media. The second stage, needs analysis, involves determining the learning media required by students to enhance the quality of learning and improve their academic performance.
2. **Design:** The second step is design, which can be compared to constructing a building—before it is built, a blueprint must first be created. In this learning media, the design process is considered from three perspectives: design, content, and language. Once the design is finalized, the next step is to develop the learning media.
3. **Development:** The third step involves developing the learning media based on the initial design. The stages undertaken by the researchers in developing the e-book media are as follows:
  - a. Creating the learning media using the AnyFlip application. The e-book is developed with a focus on design, content, and language, ensuring it differs from the learning media used in the classroom.
  - b. Reviewing the learning media by validating it with a team of media, content, and language experts.
  - c. Revising the learning media based on feedback and suggestions from the team of media, content, and language experts, resulting in a comparison between the initial media and the revised version.
4. **Implementation:** This step involves implementing the learning media in the teaching process at schools. It includes conducting small-scale and large-scale tryouts involving students to assess their responses and the appeal of the e-book learning media.
5. **Evaluation:** Based on the implementation phase, the e-book needs to be evaluated. During the evaluation stage, final revisions are made to the developed product based on feedback and suggestions provided by students during the implementation phase.

## 2.3. Validation Stage

During the validation phase, there are two types of validation: content validation and media validation:

1. Content Expert Team

At this stage, corrections were made to obtain data on the product's feasibility, assessed from the content perspective in terms of learning objectives (SK and KD), presentation aspects, and the techniques used to present the product content. Content validation was conducted by experts in the field of Body Treatment. The data collected were then analyzed and used to revise the development process of the interactive e-book-based learning media.

2. Media Expert Team

In this stage, corrections were made to the media used in terms of its design, conducted by media experts. The data collected was analyzed and used to revise the development of the interactive e-book-based learning media. After revising the product, the researchers conducted a re-validation to obtain an evaluation of whether the product falls into the "feasible" or even "highly feasible" category for use in student learning on campus.

#### 2.4. Testing

The testing phase is divided into two stages:

1. Small-Scale Testing: The small-scale testing phase was conducted at Universitas Negeri Yogyakarta, involving 10 students from the Cosmetology Study Program.
2. Large-Scale Testing: The large-scale testing phase was conducted at Universitas Negeri Yogyakarta, involving 30 students from the Beauty and Cosmetology Study Program.

#### 2.5. Data Collection Instruments

The instruments used for data collection in this research include questionnaires, interviews, observations, and documentation.

1. Questionnaires

Questionnaires are tools used to collect and record data or information by providing a set of questions to respondents, specifically students from the Cosmetology Study Program, as well as validators, to be answered according to the user's requests. The questionnaire method is used to measure program indicators related to content, language, and media.

2. Interviews

Interviews are a form of evaluation tool conducted through conversations and question-and-answer sessions with respondents to obtain information needed by the researcher. In this study, the researcher conducted interviews with students from the Cosmetology Study Program to collect data and explore deeper information about the potential and challenges present in schools.

3. Observation

Observation is a process of systematically, logically, objectively, and rationally observing and recording various phenomena to achieve specific goals. Observations were carried out in a non-systematic manner without using structured observation instruments. The observations involved directly observing classroom learning activities to analyze the learning media used by teachers to support the learning process.

4. Documentation

Documentation refers to records of past events. In this study, documentation included photos and written materials from students in the Cosmetology Study Program

during the learning process using interactive e-book-based learning media and during the completion of the learning media evaluation questionnaire.

### 3. Results and Discussion

#### 3.1. Result

The development research of the *Body Care E-Book* utilized the ADDIE research model developed by Robert Maribe Branch, which consists of five stages: analysis, design, development, implementation, and evaluation. The ADDIE development model was chosen because its development procedure aligns well with the product to be created, namely instructional media with guidelines for effective design in the development of learning materials. The primary objective of using this development model is to design and develop a product that is both effective and efficient.

##### 1. Analysis

At this stage, problem analysis and needs analysis were conducted. In the problem analysis, a preliminary study was carried out on students of the Cosmetology Study Program at the Faculty of Vocational Studies of Universitas Negeri Yogyakarta (UNY). This stage involved analyzing learning media, learning achievements, and learning outcomes of the *Body Treatment* course in accordance with the curriculum used. The results of this analysis served as a guide and consideration in developing the *Body Treatment E-Book*.

The needs analysis focused on determining the learning media required by students to enhance the quality of learning and student competence. Both students and lecturers require a more interactive learning resource to facilitate better understanding and practical application. Therefore, the *Body Treatment E-Book* was developed to enable students to study and practice independently after class, anytime, and anywhere. Ideally, the *Body Treatment E-Book* will serve as an interactive learning medium that introduces variety into the learning process, actively involving students. This *Body Treatment E-Book* integrates audio, text, images, animations, videos, music, and interactive quizzes as evaluations, providing richer information than traditional books or primary learning resources.

##### 2. Design

In designing the e-book, a literature study was conducted to search for reference sources related to the learning achievements and learning outcomes of the *Body Treatment* course. This literature study aimed to examine the content components of the digital book to be developed. An e-book (digital book) is a publication medium that includes text, images, and audio, presented in digital format, and accessible on computers or other electronic devices such as Android smartphones or tablets (Qibtiya & Kustijono, 2018). The e-book components must minimally include: (1) a preface, (2) a table of contents, (3) the main body of the book divided into chapters or sections with learning objectives, (4) a bibliography, (5) a glossary, and (6) an author bio/about the authors.

The material is organized neatly with an attractive layout, featuring original photos and sketches to support the content, making it easier for readers to understand the material presented. The content framework includes the design of step-by-step

procedures for performing body care using both traditional and modern techniques, which will serve as the e-book content.

The design of the *Body Care E-Book* as a learning medium begins with creating a format that includes an introductory section consisting of two parts. The first part is the cover, titled *Body Treatment*. The second part is a menu containing the following sections: Preface, Table of Contents, Introduction (Basic Competencies, Learning Outcomes, Instructions, and General Explanation), Material, Evaluation, References, and Author Biography.

In creating the e-book script, the content framework was structured to include the front page, book identification, general guidelines, concept map, table of contents, and material divided into five chapters. The selection of materials was based on the needs of the readers. Additionally, a closing section was included, summarizing all the material. The following e-book script was created as a layout based on the e-book design template.

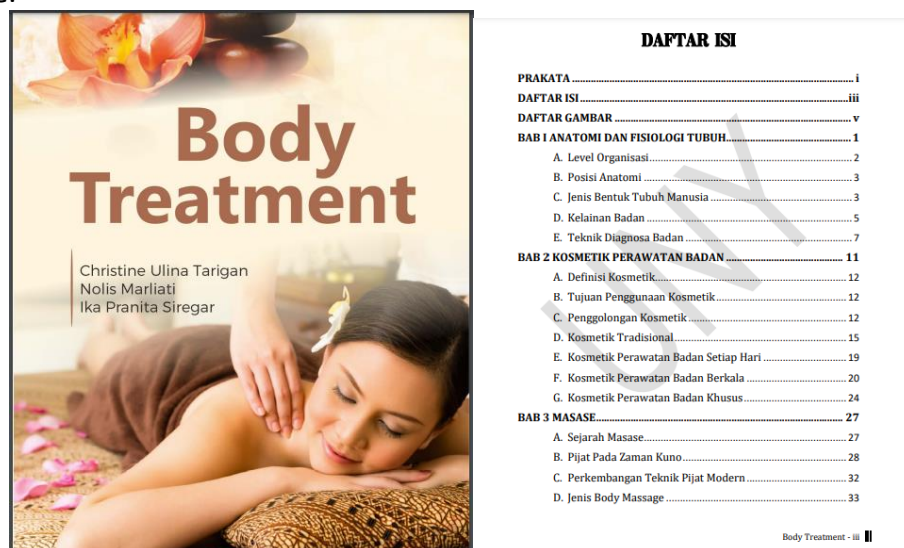


Figure 2 Cover and Table of Contents of E-book Body Treatment

### 3.2. Discussion

The development of the *Body Treatment* e-book as an interactive electronic (non-printed) medium aims to serve as a supplementary learning resource for the *Body Treatment* course and to enhance students' reading interest through an audio-visual presentation. The medium is developed in the form of an electronic book accessible via laptops, making it easy to use and practical.

The decision to develop an e-book instead of a flipbook, conventional book, or other media was based on its ability to keep readers more focused on the content, as it avoids excessive animations and distractions. Additionally, e-books can be accessed through digital devices such as laptops, smartphones, and computers (Sabtaningrum et al., 2020), making reading activities more efficient and effective.

The majority of students spend their time using electronic devices for playing games and social media rather than using their time for reading books. Therefore, an *E-Book* as a learning medium utilizing electronic devices can be developed. The development of this product follows the procedure established by Robert Maribe Branch, using the ADDIE research model. This model consists of five stages: Analysis (needs analysis and task analysis), Design (product

design), Development (product development), Implementation (product implementation through small and large group trials), and Evaluation (product evaluation).

The results of the *Body Treatment* e-book development identified supporting and inhibiting factors, including:

- a. Supporting factors; 1) **Technology**: Developing a digital book in the current era is highly appropriate, as it simplifies the process of designing an e-book using applications that offer extensive functionality and limitless design options. 2) **Creativity**: Creativity is crucial in e-book development, particularly in designing the layout, and placing text and images effectively. 3) **Accessibility of Anyflip**: The e-book can be accessed via digital devices anytime and anywhere using Anyflip.
- b. Inhibiting factors: 1) **Cost**: Developing the *Body Care* e-book involves creating content by conducting practical activities, which requires additional support, such as hiring photographers for content creation. Other costs include renting costumes and a photo studio. 2) **Validation Revisions**: During the development process, several revisions were necessary to improve the e-book and make it more acceptable to readers. 3) **Book Editing**: The editing process posed challenges. 4) **Anyflip Accessibility**: The free version of Anyflip caused delays in access, due to the presence of advertisements and navigation features that did not function properly when the e-book was uploaded to the platform.

The use of e-books to support learning in *Body Treatment* can be an effective way to increase students' desire, interest, and motivation. It is also considered capable of providing psychological support and clarifying what has already been explained by the lecturer. Additionally, e-books can be accessed and studied anytime and anywhere.

According to Wenny Wijayanti (2015), interactive teaching materials are a combination of two or more media (audio, text, graphics, animation, and video) that users can manipulate or interact with to control commands or the natural behavior of a presentation. Meanwhile, Prihantana (2015) highlights that the benefits of interactive teaching materials using multimedia technology enable students not only to hear (engaging the sense of hearing) but also to see (engaging the sense of sight). The more senses involved in receiving and processing information, the greater the likelihood that the information will be understood and retained in memory.

The feasibility test of the development of the *Body Care* e-book was carried out in the assessment stage by material experts and media experts. This is to the theory put forward by Setyono (2013) in his research showing that the learning media developed as an e-book has very good criteria based on the assessment of material experts and media experts with an average of 86.56%. The validation results obtained from material experts were 95.1% with a very feasible category. The average percentage of media experts was 95.3% with a very feasible category, thus the development of the *Body Care* ebook can be said to be very possible to be used to support learning in the *Body Care* course.

The revisions given by the material and media validator correct errors in the product to be developed, so that updates are needed if there is new knowledge related to the *Body Care* material. In addition to being said to be feasible for the development of the *Body Care* e-book, it can also be accepted by users, namely Cosmetology students. In the recapitulation of the user test results, the category is very feasible. This is proven because each aspect that was tested was categorized as very feasible, with results in the aspect of material quality at 92.58%, in the aspect of grammar at 91.17%, in the aspect of media quality at 92.17% in the aspect of usability of 93.33% and the aspect of accessibility of 91.83%. From all aspects, the results of the user test

with the panelists obtained a percentage of 92.2% with a very feasible category. This assessment was carried out by covering aspects of material quality, grammar, media quality, usability, and accessibility in the development of the Body Care e-book. The results of the user test were distributed to the category of make-up and beauty students. After the user test, the next stage is to disseminate it by creating online e-book access by uploading it to the URL of anyflip website.

#### 4. Conclusions

The design of the e-book development was carried out by analyzing problems and needs to obtain material analysis. Problem analysis was conducted through observation, interviews, and documentation, while needs analysis was based on the findings from the problem analysis. The results of the problem and needs analysis indicated the following: a) Limited sources of information, both printed and digital, discussing Body Treatment and practical techniques. b) Students' lack of interest in using printed books. c) Low student motivation for independent learning using books anytime and anywhere.

The development of the e-book involved creating a concept and framework, drafting the e-book, and designing it to conduct a product feasibility test. The results of this feasibility test were validated by experts, including media experts and material experts. The validation results from media experts showed a score of 95.3%, categorized as "very feasible." Similarly, the material validation scored 95.1%, also categorized as "very feasible." User testing with 30 panelists resulted in an overall percentage of 92.2%, categorized as "very feasible." After processing the data, the e-book product is ready to be disseminated online.

There are supporting and inhibiting factors in the development of the *Body Treatment* e-book. The supporting factors include: 1) Technology – developing a digital book in today's era is highly appropriate, as it simplifies the design process with applications offering numerous functions; 2) Creativity – creativity is essential in designing the e-book, particularly in arranging layouts, and placing text and images; 3) Anyflip accessibility – Anyflip can be accessed via digital devices anytime and anywhere. On the other hand, the inhibiting factors include: 1) Cost – creating content for the *Body Care* e-book required practical activities and additional assistance, such as hiring photographers, as well as renting costumes and photo studios; 2) Validation revisions – the development process required multiple revisions to improve the e-book and make it more acceptable to readers; 3) Anyflip accessibility issues – the free version of Anyflip caused delays in access, displayed numerous ads, and included navigation issues that hindered optimal functionality when the e-book was uploaded.

#### Conflict of Interest

The authors declare no conflict of interest.

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