# Development of Flip PDF Professional Based Flipbook Learning Media on Basic Practical Elements of Hair Beauty for Class X Beauty Students of Gelora Jaya Nusantara Vocational School Medan

**Nurhayati Tanjung[1] , Dian Maya Sari[2] , Anastasya Sabatinit**

Family Welfare Education, Faculty of Engineering, Universitas Negeri Medan

**ABSTRACT**

This study aims to develop *Flipbook* learning media based on *Flip PDF Professional* and determine the feasibility of learning media on basic  practical elements of hair beauty at SMK Gelora Jaya Nusantara Medan. The research method used in the *Research & Development* (R&D) research method with the ADDIE development model. The sample of this study was class X students of Beauty Management at SMK Gelora Jaya Nusantara Medan as many as 35 students. The research instrument used is a questionnaire instrument with  descriptive  statistical  data  analysis techniques. Based on the results of the researchthat has been done, the validation results from material experts get a score of 85.9% in the "Very Feasible" category. The results of validation from media experts get a score of 92.3% in the "Very Feasible" category. Student responses regarding learning media get a response of 91.86% in the "Very Feasible" category. The conclusion is that the Flipbook Learning Media Development based on Flip PDF Professional on Basic Practical Elements of Hair Beauty for Grade X Beauty Students is very feasible to use as learning media in the learningprocess.

**Keywords:** *Development,  Learning  Media,  Flipbook*

ABSTRAK

Penelitian ini bertujuan untuk mengembangkan media pembelajaran Flipbook berbasis Flip PDF Professional dan mengetahui kelayakan media pembelajaran pada mata pelajaran praktik dasar tata kecantikan rambut di SMK Gelora Jaya Nusantara Medan. Metode penelitian yang digunakan metode penelitian Research & Development (R&D) dengan model pengembangan ADDIE. Sampel penelitian ini adalah siswa kelas X Tata Kecantikan SMK Gelora Jaya Nusantara Medan sebanyak 35 siswa. Instrumen penelitian yang digunakan adalah instrumen angket dengan teknik analisis data statistik deskriptif. Berdasarkan hasil penelitian yang telah dilakukan, hasil validasi dari ahli materi mendapatkan nilai 85,9% dengan kategori "Sangat Layak". Hasil validasi dari ahli media mendapatkan skor 92,3% dengan kategori "Sangat Layak". Tanggapan siswa mengenai media pembelajaran mendapatkan respon sebesar 91,86% dengan kategori "Sangat Layak". Kesimpulannya adalah Pengembangan Media Pembelajaran Flipbook berbasis Flip PDF Professional pada Mata Diklat Elemen Dasar Tata Kecantikan Rambut untuk Siswa Kelas X Tata Kecantikan sangat layak digunakan sebagai media pembelajaran dalam proses pembelajaran.

Kata kunci: Pengembangan, Media Pembelajaran, Flipboo

# INTRODUCTION

Education is closely related to learning and the learning process. The learning atmosphere and learning process can be realized through an educative interaction process between two human elements, namely the student as the learning party and the teacher as the teaching party with the main subject being the student himself (Hanafy, 2014). Science and Technology (IPTEK) is increasingly sophisticated and supports the creation of new technologies. Digital technology has now begun to be used in the field of education as a means to support the learning process, either as an information tool or as a learning tool such as learning resources and learning media (Mulyani, 2021). Learning media can briefly be stated as something that is used as a communication medium in learning activities (Miftah, 2013). Learning media must have new designs and innovations that aim to create a pleasant learning atmosphere, increase student interest and learning outcomes.

Based on the results of observations that have been made, SMK Gelora Jaya Nusantara Medan has provided learning facilities to support the learning process at school such as textbooks and projectors. However, during the learning process, the existing learning media cannot be utilized optimally due to the lack of learning facilities available so that student learning outcomes tend to be not optimal, especially in the basic practical elements of hair beauty. Based on these observations, SMK Gelora Jaya Nusantara Medan currently needs learning media that can overcome student constraints. Based on the description above, the authors are interested in conducting research on "Development of Flipbook- Based Learning Media *Flipbook*".

*PDF Professional* on Basic Practical Elements of Hair Beauty for Class X Beauty Students of SMK Gelora Jaya Nusantara Medan ". The purpose of this study was to develop learning media as well as to determine the feasibility of *Flipbook* learning media based *on Flip PDF Professional* on basic practical elements of hair beauty.

# THEORETICAL STUDIES
## A. Learning Media

The word media comes from Latin and the plural form of *medius* which literally means intermediary or introducer. The *Association of Education and Communication Technology* (in Arsyad, 2013) suggests that media are all forms and channels used to convey messages or information. Furthermore, according to Sukiman quoted in Shoffa (2021), learning media is anything that can be used to channel messages from the sender of the message to the recipient of the message so that it stimulates the thoughts, feelings, attention and interests and willingness of students. Based on some of the explanations above, it can be concluded that learning media is any form of communication medium used in the learning process to create a good learning atmosphere that stimulates student learning motivation.

## B. Flipbook

*Flipbooks* are books in the form of *soft files* that students can open and read anywhere and anytime. *Flipbook* adapted by utilizing technology because books are usually synonymous with printed teaching materials. According to Restiyowati (2012), *Flipbook* is a textbook that is converted into a digital format, *Flipbook* also has the understanding as a learning environment that is easy to use and easy to use.

has an application that contains a multimedia database of instructional resources that stores multimedia presentations on topics in a book. According to Khairinal (2021) *Flipbook* is a book published in digital format, which contains text, images, and videos that can be read via a computer or other electronic device. Based on several opinions that have been presented above, it can be concluded that *Flipbook* is a textbook sheet made in digital form that can combine text, images, video, audio, and so on that can be read via electronic devices such as computers or *smartphones.*

### C. Basic Practical Elements of Hair Beauty

In the Flow of Learning Objectives or known as ATP, it

explains that the learning achievements that students must achieve in the basic practical elements of hair beauty include analyzing the scalp and hair, applying scalp sorting methods, applying scalp and hair care, performing scalp sorting with various methods of sorting movements, and performing scalp and hair care.

1) Scalp and Hair Analysis Hair is the crown

It is one of the elements that cannot be ignored because hair reflects personality, age, and health. Hair grows from the skin as horny shafts and is spread across the skin of the body and head. The number of hair strands varies from person to person, this can be seen from the color and texture of the person's hair. Hair also experiences growth. For healthy hair under normal circumstances, it will grow ½ inch long.

or 1 ¼ cm every month or also 0.3 mm in 24 hours (Sari, 2020). According to Sari (2020) hair fertility is experienced at the age of 15 - 30 years and begins to decrease in growth towards the age of 50 years. hair growth experiences three cycles, namely Phase 1) Anagen (growth period), length of growth 2-6 years, 2) Catagen phase (transitional period), lasting 2-3 weeks, 3) Telogen phase (rest period), lasting 3-4 months.

Scalp analysis aims to; determine the condition of the scalp and hair, determine the cosmetics to be used, determine the next treatment or styling. Hair type analysis consists of six categories namely; texture, hair wave pattern, scalp condition, hair elasticity, hair porosity, and hair density (Said, 2009).

2) Scalp and Hair Sorting

Sequencing (*massage*), comes from the Arabic word *masch,* which means to squeeze. In Indonesian it is called sequencing, while in English it is called *massage.* When performing scalp and hair treatments, one of the processes performed at the treatment stage is scalp sorting or *scalp massage. Massage* is very beneficial for hair growth. The benefits of massage in scalp and hair care according to Sopiah (2016) are improving blood circulation, calming nerves, stimulating muscle cells and scalp, maintaining muscle and scalpelasticity, cleaning dirt on the scalp, maintaining hair growth, accelerating gland movement.

According to Sopiah (2016) as for The 5 basic movements of scalp and hair *massage* are; a) *Effleurage*,

is a rubbing motion. This movement is carried out at the beginning of sequencing with the aim of leveling the cosmetics and the end of sequencing after the *tapotage movement.* b) *Petrisage,* a movement performed with all fingers and palms by massaging, pressing, squeezing muscles to stimulate muscle tissue cells, stimulate nerves, stimulate blood circulation, and help remove dirt attached to the scalp and horn cells that are no longer useful, c) *Vibartion*, Vibrating movements can be done with fingers andthewhole hand. This movement serves to stimulate the nerve endings that are less active, d) *friction*, *friction* motion is circular movements with alternating emphasis and relaxation, and

e) *Tapotage,* This movement is done with the fingers or palms of the hands. The *tapotage* movement with the fingers can be done on the *hairline* area by flicking, while with the palm of the hand it can be done on the shoulders and back.

## RESEARCH METHODOLOGY
### A. Type of Research

This research includes *research and development (R&D)* methods. The product developed in this study is *Flipbook* learning media based on *Flip PDF Professional*. According to Sugiyono (2018), *Research and Development* is a research method used to produce certain products by testing the validity and effectiveness of these products.

### B. Research Procedure

This research procedure refers to the ADDIE development model which consists of 5 development stages, namely Analysis, Design, Development,

*Implementation* (Implementation) and Evaluation. (Suryani, 2019).

### C. Location and Time of Research

The location of the research is SMK Gelora Jaya Nusantara Medan School at Jl. Jamin Ginting No. 35 Km. 15, Ladang Bambu Baru, Kec. Medan Tuntungan, Medan City, North Sumatra. This research was conducted in the even semester of the 2022/2023 academic year with the research subject of Class X Cosmetology.

### D. Data Source

The data collected in this study consisted of two types of data, namely; a) Qualitative data, Qualitative data is about media development which includes the media development process, criticism, and suggestions regarding the media development process from material experts and media experts and the media development process from material experts.

b) Quantitative data, Quantitative data is data regarding the assessment of the feasibility of learning media for basic hair beauty practices using *Flipbook* based on *Flip PDF Professional* from material experts and media experts as well as the opinions of class X students of SMK Gelora Jaya Nusantara Beauty.

### E. Data Collection Technique

This research uses a questionnaire or questionnaire consisting of a student and teacher needs analysis questionnaire using a *guttman* scale, a material and media expert validation questionnaire, and a product trial questionnaire using a *Likert* scale.

### F. Data Analysis Technique

Data analysis technique using descriptive statistical data analysis. The questionnaire data collected was then analyzed and calculated the overall average.

## RESEARCH RESULTS AND DISCUSSION

### Product Development Results

*A.* **Analysis**

At this stage, researchers conducted observations at SMK Gelora Jaya Nusantara with the aim of identifying problems in the field which were used as a reference in developing products. Observation. Observations were made on February 7, 2023 by using a student needs analysis questionnaire given to 35 students of class X Cosmetology at SMK Gelora Jaya Nusantara Medan and a teacher needs analysis questionnaire given to 1 cosmetology teacher who teaches Basic Practical Elements of Hair beauty. Based on the results of the analysis of student needs, the results obtained a value of 100% and the results of the teacher needs analysis questionnaire obtained a value of 100% so that it can be concluded that all students and teachers need *flipbook* learning media that will be developed by researchers.

*B.* **Design**

After conducting a needs analysis, the next step is to design the initial product or design the learning media. The following are the steps for making *Flipbook*, including the following; a) determine the content of the learning material, b) make a *flowchart*, c) make a *storyboard,,* and prepare research instruments.

*C.* **Development**

At this stage is developing products or learning media. This stage is the realization stage of the *flowchart* and *storyboard* that has been made before. *The* material is compiled in PDF form with the *canva* application, then the PDF and the prepared learning videos are merged into one using the *Flip* application.

*PDF Professional.* Furthermore, so that the *Flipbook* media used is easily accessed by students and teachers *offline*, the *Flipbook* media is converted into an application form using *website 2 APK builder* software. The media that has been made then validates the feasibility of the media to material experts and media experts. The purpose of this media feasibility validation is to determine and determine the feasibility of the learning media developed before conducting the product trial stage to students. At this stage, criticism and suggestions from validators will be used as a basis for revising the media.

The validators used were 5 people consisting of 3 material experts, namely Mrs. Dra. Marnala Tobing, M.Pd and Mrs. Dian Maya Sari, M.Pd who are lecturers in the Cosmetology program at Medan State University, and Mrs. Mutiara Elsani Damanik, S.Pd who is a teacher in the field of beauty cosmetology element of basic hair beauty practice class X SMK Gelora Jaya Nusantara Medan. Media expert validators as many as 2 people namely Mr. Muhammad Isnaini, M.Pd and Mrs. Dr. Farihah, M.Pd who are lecturers at the Faculty of Engineering, State University of Medan.
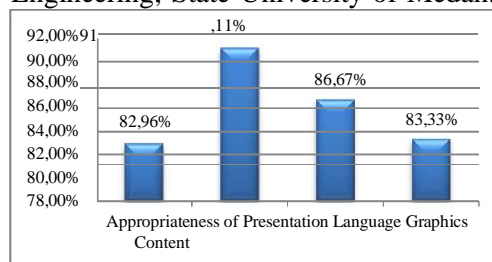


Figure 1 Average Percentage Validation Results

by Material Expert

The results of the feasibility test of learning media conducted by 3 material experts from the aspect of content feasibility with a percentage of 82.96% with the category "very feasible" consisting of 4 indicators with the category "very feasible".

feasible" and 5 indicators with the category "feasible". Material expert assessment of the presentation aspect with a percentage of 91.11% with the category "very feasible" consists of 3 indicators with the category "very feasible". In the linguistic aspect with a percentage of 86.67% consisting of 3 indicators with the category "very feasible". In the aspect of graphics with a percentage of 83.33% with the category "very feasible" consisting of 1 indicator with the category "very feasible" and 1 indicator with the category "very feasible".
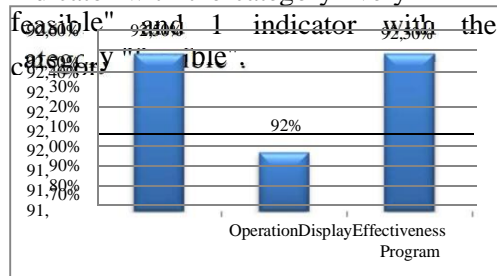


Figure 2 Average Percentage Validation Results by Media Expert

The results of media feasibility validation from media experts in the aspect of operation with a percentage of 92.5% with the category "very feasible" consisting of 3 indicators with the category "very feasible" and 1 indicator with the category "feasible". In the display aspect with a percentage of 92% with the category "very feasible" consisting of 5 indicators with the category "very feasible", and in the aspect of program effectiveness it gets a percentage of 92.5% with the category "very feasible" consisting of 7 indicators with the category "very feasible" and 1 indicator with the category "feasible".

### D. Implementation

This stage is carried out by conducting product trials on class X students of Beauty Management at SMK Gelora Jaya Nusantara Medan with a total of 35 students, which are divided into 3 groups, namely a small group of 5 students, a medium group of 10 students, and a large group of 10 students.

large group of 20 students who were randomly selected. The trial was conducted using *Flipbook* media based on *Flip PDF Professional* in a face-to-face manner.
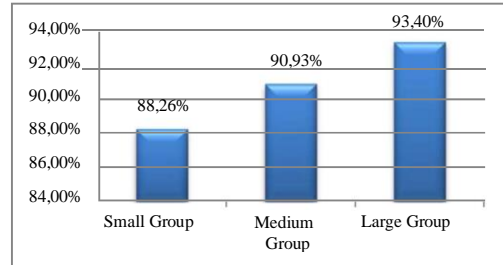


Figure 3: Average Percentage Results of the Trial

Products

The results of the small group trial received a percentage score of 88.53% and were included in the "very feasible" category. The results of the medium group trial conducted on 10 students received a percentage score of 91.3% and were included in the "very feasible" category. The results of the large group trial conducted on 20 students scored 93.4% and were included in the "very feasible" category.

### E. Evaluation

At the evaluation stage, errors and shortcomings that occur during the research process are analyzed and used as benchmarks in improving learning media. Based on the calculation results obtained from the material expert of 85.9% with the category "very feasible", the media expert assessment of 92.3% with the category "very feasible", and the results of the field trial of 91.86% with the category "very feasible".

### Discussion of Research Results

The development of *Flipbook* learning media on Basic Practical Elements of Hair beauty can be used as teaching material on sorting material and scalp and hair care for class X Tata students.

Beauty SMK Gelora Jaya Nusantara Medan.

In developing *Flipbook* learning media based on *Flip PDF* Professional, you can use the ADDIE development model developed by Dick and Carry (1996) in Suryani (2018) which consists of 5 (five) stages which include analysis (*analysis)*, design (design), and development (development). (*design*), development(The results of the assessment obtained from the material expert received an average percentage value of 85.9% with the category "very feasible", the results of the assessment obtained from the media expert received an average percentage value of 92.3% with the category "very feasible", the results of the small group trial received an averagepercentagevalueof88.26% with the category "very feasible",theresults of the medium group trial received an average percentage value of 90.93% with the category "very feasible" and the results of the large group trial received an average percentage value of 93.4% with the category "very feasible".

**CONCLUSIONS AND SUGGESTIONS**
**Conclusion**

This research was conducted in formal education, namely at SMK Gelora Jaya Nusantara Medan with a total research sample of 35 students in class X Cosmetology. One of the utilization of advances in technology and knowledge namely by developing learning media so that the learning process can run optimally. One of the learning media developed for learning is *Flipbook* based on *Flip PDF Professional*. The development model used is the ADDIE development model which consists of 5 stages*,* namely Analysis, Design*,* Development*,andEvaluation,*Implementation, and *Evaluation*.

Based on the formulation, objectives, results and discussion of research on the development of Flipbook-based learning media *Flip PDF Professional* on Basic Practical Elements of Hair beauty can be concluded as follows: (1) Development of learning media *Flipbook* based on *Flip PDF Professional on* Basic Practical Elements of Hair beauty there is an assessment from material experts with an average score percentage of 85.9% with the category "Very Feasible", media expert assessment with an average score percentage of 92.3% with the category "Very Feasible". Based on the overall validation results by material experts and media experts, there is an average score percentage of 89.1% in the "Very Feasible" category. (2) The feasibility trial of *Flipbook* media products based on *Flip PDF Professional* on Basic Practical Elements of Hair beauty obtained an average percentage score of 86.26% small group trials with the category "Very Feasible", 90.93% medium group trials with the category "Very Feasible", and 93.4% large group trials with the category "Very Feasible". Based on the results of the overall product trial assessment, there is an average percentage score of 90.63% in the "Very Feasible" category. Thus it can be concluded that the *flipbook* learning media based on *flip PDF professional* that has been developed is very feasible as a learning media on basic practical elements of hair beauty sorting material and scalp and hair care.

**Advice**

Based on the results of research, discussion, and final media review in the development of Flip *PDF Professional-based Flipbook* learning media on Basic Practical Elements of Hair beauty, researchers provide suggestions for research, namely as follows: (1) Learning media

*Flipbook* based on *Flip PDF Professional* can help teachers in the learning process, especially sequencing material and scalp and hair care, because *Flipbook* based on *Flip PDF Professional* can provide better feedback for students so that students are more interested in learning and can increase student learning motivation in achieving the desired learning objectives. (2) Learning materials on *Flipbook* learning media based on *Flip PDF Professional are* expected to be not only limited to sequencing material and scalp and hair care, but also to other materials. (3) In this study, implementation was limited only to determine the feasibility of the media and determine student responses to the media developed. Therefore, it is necessary to conduct further research to examine the effectiveness of the learning media developed. (4) The developed media is expected to be used in schools and madrasas that have the same characteristics.

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