
DEVELOPMENT OF E MODULE HEAD MASSAGE LEARNING MEDIA IN TREATMENT, PRE-STYLING HAIR AND STYLING COURSES

Siti Nusaibah Izzati^{1*}, Elvyra Yulia², Lilis Jubaedah³

^{1,2,3} Cosmetology Education Study Program, Faculty of Engineering, Jakarta State University, East Java, Indonesia

correspondence e-mail nusaibahizzati@gmail.com, elvyrayulia@gmail.com,
lis_jb@yahoo.com

ABSTRACT

E-Module is an effective digital media and prioritizes student independence in the learning process. The purpose of this study was to find out the process of developing the head massage e-module and to find out the validity and practicality of the product so that it can be used as a source of independent learning for students of the Cosmetology Study Program, Jakarta State University. The research method used is Research and Development with the ADDIE Dick and Carry model. The validation test was carried out by media material experts. Practicality tests using one to one tests and small group tests on students of the Cosmetology Study Program class of 2018 and 2019 who have received Grooming, Hairdressing and Hairstyling courses. The validation tests from material experts and media experts respectively were 93.6% 85.6% with the criteria for both being "Very Valid". One-on-one trials on 3 students and small group tests on 30 students respectively obtained 93.06% and 94.1% results with both criteria being "Very Practical". Based on the practicality test results, it can be interpreted that the Head Massage E-Module is valid and practical to use as a source of independent learning in the subject of Hair Care, Pratata, and Hair Styling treatments.

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A. Introduction

The development of knowledge from time to time supports the creation of new technologies that mark the progress of the times (Lestari, 2018: 95), such as information and communication technology. Information and communication technology is an important element and has such a big role in the life of the nation and state. Information and communication technology has had an impact on the world of education, especially in the learning process. Technology has now begun to be used in educational institutions as a means to support learning, either as an information tool or as a learning tool such as the use of media. One of the developments of communication technology in the world of education is learning media.

Learning media is a very strategic instrument in determining the success of the teaching and learning process. Because its existence can directly provide its own dynamics to students (Hasanah, 2020: 36). In the world of education, it is necessary to improve learning media because the role of learning media is no longer seen as just a tool, but an integral part of the education and learning system. Learning media is needed in the world of education because it is one of the supporting factors for achieving learning objectives and can create effective learning and can improve learning achievement.

The learning media is used as an effective source of information in the teaching and learning process. In this technological era, digital learning media is needed which can be used flexibly and effectively, such as e-module learning media. According to Suryadi (2014) referred to in Herawati & Muhtadi (2018: 182) e-modules are innovative media that can increase student interest in learning. A learning process in order to be able to improve the achievement of learning outcomes needs to be supported by the right learning guide. This is because the face-to-face time in front of the class is very limited when compared to the volume of material that must be completed.

The learning process in Nursing, Pratata, and Hairdressing courses is still ineffective due to limited learning resources. In this course, learning is carried out by applying the student center learning approach, which promotes student independence to seek and find knowledge and build the expected competencies. One of the materials contained in the course Treatment, Pratata, and Hairdressing, namely head massage. Head massage is one of the processes when performing scalp and hair care which aims to improve blood circulation, calm nerves, increase

and accelerate blood circulation, maintain hair growth and facilitate glandular mobility (Sopiah & Dian, 2016: 40). In the process of hair care, massage movements are carried out using 5 basic massage movements, namely: effleurage, vibration, friction, petrissage, and tapotage (Rostamailis et al., 2008: 125), these 5 movements are often combined with rotational movements and head acupressure such as, the top of the head, temples, and the back of the head (Pratiwi & Rakhmawati, 2016: 35-36). In addition to the basic massage movements, there are basic techniques in head massage in treating the scalp and hair, namely relaxing movements, acupressure, gliding/swiping, sliding and rotating, on the scalp, on hair growth, on the forehead, on the front of the scalp, on scalp back, ear to ear, on the back of the neck, on the shoulders, and on the spine (Sopiah & Dian, 2016: 40-42) and (Pratiwi & Rakhmawati, 2016: 35-39).

Based on needs analysis, in the head massage learning process, the learning media used is difficult to understand and cannot increase student motivation, and its use is limited in space and time, so learning media is needed such as e-module head massage material which can make it easier for students to understand the material, increase learning motivation, and flexible and not limited in its use in space and time. The development of e-modules uses the Canva application, which is an online design program that provides various features such as presentations, resumes, pamphlets, brochures, charts, infographics, banners, bookmarks, bulletins, and so on provided on the Canva website or application (Tanjung and Faiza). , 2019, referred to in (Pelangi, 2020: 81). According to Demarest, referred to in (Rahmasari & Yogananti, 2021: 166) Canva is a free design platform that can easily help its users to create designs with professional results. aims to: 1. To find out the results of the development of e-module head massage learning media, 2. To find out the validity and practicality of the e-module head massage.

B. Method

This study uses the Research and Development (R&D) method with the ADDIE development model (Analysis, Design, Develop, Implement, Evaluate). The ADDIE model uses a systems approach. The essence of the systems approach is to divide the planning process into several steps. Organize steps into logical sequences, then use the output of each step as input for the next step. Likewise with the opinion of Hadi and Agustina (2016), referred to in (Rusmulyani, 2020:

103) saying that the ADDIE model is a very simple model in its procedures, but its implementation is systematic.

This model was developed by Dick and Carry and serves as a guide in building training program infrastructure that is effective, dynamic and supports the performance of the training itself. The ADDIE model uses five stages of development. The five development stages referred to are analysis, planning, development, implementation, and evaluation (Cahyadi, 2019: 36-37).

Data collection techniques in this study used a questionnaire/questionnaire method. Questionnaires were given to carry out needs analysis and product trials and were given to media experts and material experts for validation tests. Questionnaires were given to cosmetology education study program students who had received Grooming, Hairdressing and Hairdressing courses. The analysis technique used in this research and development is a qualitative data analysis technique from the results of expert and user trials. Data obtained from validation by material experts and media experts will be analyzed descriptively qualitatively and used as a reference for revising the product being developed. The developed learning media is validated using a validation sheet in the form of a questionnaire/questionnaire. The results of the research on all aspects were assessed using a Likert scale. The Likert scale is used to measure attitudes, opinions, and perceptions of a person or group of people about social phenomena. In research, this social phenomenon has been specifically defined by researchers, which are hereinafter referred to as research variables (Sugiyono, 2013: 102).

Table 1. Likert scale

No	Answer Choices	Weight Score
1	Very Good	5
2	Good	4
3	Enough	3
4	Less	2
5	Very Less	1

After the score is determined, the data will be applied in the calculation to assess the percentage of the data calculated by the following formula:

$$\text{Validity Level (\%)} = \frac{\text{score obtained}}{\text{ideal maximum score}} \times 100$$

$$\text{Practicality Level (\%)} = \frac{\text{score obtained}}{\text{ideal maximum score}} \times 100$$

Furthermore, the percentage is converted into sentences to assess. The following is a table of guidelines for media eligibility presentation criteria:

Table 2. Media Eligibility Criteria

No.	Score in Percent	Eligibility Category
1.	< 21 %	Invalid
2.	21 – 40 %	Less Valid
3.	41 – 60 %	Enough
4.	61 – 80 %	Valid
5.	81 – 100 %	Very Valid

Table 3. Media Eligibility Criteria

No.	Score in Percent	Eligibility Category
1.	< 21 %	Impractical
2.	21 – 40 %	Less Praktical
3.	41 – 60 %	Enough
4.	61 – 80 %	Praktical
5.	81 – 100 %	Very Practical

C. Result and Discussion

1. Analysis

This analysis was carried out to identify the problems and needs of the students, find out the material appropriate to the media being developed, and find out the opinions of the students about the procurement or development of the E-Module. The analysis phase consists of needs analysis, student analysis, analysis of facts, concepts, principles, and procedures of the subject matter, and analysis of learning objectives.

a. Performance Analysis

This analysis was carried out to obtain information regarding the conditions and needs of students in the Treatment, Pratata, and Hair Styling courses, which are in the form of independent and interactive learning resources with E-Module learning media. Identification was carried out using a needs analysis questionnaire filled out by cosmetology study program students.

Based on the data obtained from the results of the needs analysis, it can be described as follows: students answered students answered that it is necessary to develop learning media that is flexible and not limited to its use in space and time in the subject of Treatment, Pratata, and Hairdressing on head massage material and participants students answered that it was not yet available and it was necessary to develop learning media based on E-Module on head massage material in the subjects of Hair Care, Pratata and Styling.

b. Student Analysis

Student analysis was carried out by finding out student characteristics and student experiences while studying head massage material. The results of the analysis carried out are known that the source of learning material for head massage is obtained from Power Point media with the lecture method. Limitations of learning resources in the subject of Treatment, Pratata, and Hairdressing subject to head massage make it difficult for students to understand the material and cannot increase students' learning motivation.

c. Analysis of Facts, Concepts, Principles, and Procedures of Subject Matter

Material analysis regarding facts, concepts, principles and procedures is a form of identification of the material so that it is relevant to the development of the E-Module. This analysis was carried out through a literature study of books and literature on Treatment, Pratata, and Hair Styling. The literature study that was carried out was to collect various books, references, and theories that would serve as the basis for making the E-Module.

The material that will be presented in this E-Module is in accordance with the Semester Learning Plan (RPS) in the Grooming, Pratata, and Hair Styling courses. Based on the CPL, CPMK, and Sub CPMK in the RPS, the material that will be presented in the E-Module is divided into 2 discussions, namely basic knowledge of hair care and head massage movements.

The concept that will be developed in this research is the development of head massage E-Module learning media in the Nursing, Pratata, and Hair Styling courses using the Canva application. So that the resulting E-Modules can be accessed easily and practically, the final E-Modules are packaged in web form.

d. Analysis of Learning Objectives

After conducting needs analysis, student analysis, and subject matter analysis, it was found that the purpose of the development of Head Massage E-Module learning media was "Students have knowledge, attitudes, and skills in massage techniques in hair care" with learning indicators namely students skilled in head massage.

2. Design

a. Reviewing Core Competencies and Basic Competencies to Determine Materials

Based on the Analysis of Facts, Concepts, Principles and Procedures, Allocation of Learning Time, Student Assessment Indicators and Instruments. The results of the analysis are used as a reference in the preparation of E-Module learning media materials. The E-Module with a discussion of head massage with reference to RPS for the subjects Treatment, Pratata, and Hair Styling is divided into 2 discussions, namely:

- 1) Basic knowledge of hair care
- 2) *Head massage*

b. Designing Learning Scenarios with Learning Approach

Make a story board of the components contained in the e-module. The design that will exist in the E-Module consists of the main menu, namely 1. Developer profile, contains developer profiles, namely researchers and supervisors, 2. Instructions for use, contains how to use the learning E-Module, 3. Introduction, there are several sub menus , namely: Concept map, contains the flow of material to be studied, Background, contains the background for making E-Module learning media, Instructional objectives, contains competency objectives for making E-Module learning media, a brief description, contains a brief explanation of the use of E-Module learning media Module, Summary of material, contains a summary of all material, Relevance, contains links to literature on head massage material, 4. Material, contains material sub menus, namely: Definition of hair care, Types of hair care, Definition of head massage, Functions and benefits of head massage, Indications and contraindications for head massage, Head anatomy, Basic head massage movements, Head massage techniques, Head massage procedures, 5. Quiz, b contains several questions to measure the knowledge of users of the E-Module head massage learning media, and 6. Glossary, contains terms contained in the E-Module

c. Selection of teaching material competencies

Competence in learning media based on RPS for Nursing, Pratata, and Hairdressing courses, namely students skilled in head massage.

d. Initial Planning of Learning Devices

Based on the needs analysis, students need a module on Head Massage material whose use is not limited by space and time. Therefore, the researcher

chose to develop a head massage E-Module learning media in the Nursing, Pratata, and Hairdressing courses. The application used is Canva because it can produce interactive E-Modules containing text, images/illustrations, quizzes, audio/music, and relevance related to head massage material. So that the resulting product can be accessed easily and practically, the final E-Module is packaged in the form of a website.

e. Designing Learning Evaluation Materials and Tools

The material contained in the Head Massage E-Module is, Definition of hair care, Types of hair care, Definition of head massage, Functions and benefits of head massage, Indications and contraindications for head massage, Head anatomy, Basic movements of head massage, Massage techniques head, Head massage procedure. The evaluation tool for the Head Massage E-Module is in the form of a quiz which contains several questions to measure user knowledge of head massage E-Module learning media based on the material contained in the E-Module.

3. Development

The first stage carried out by researchers in product development is to make a big picture of the contents of the E-Module learning media. Then realize it in the Canva application.



Picture 1. Cover Section Design

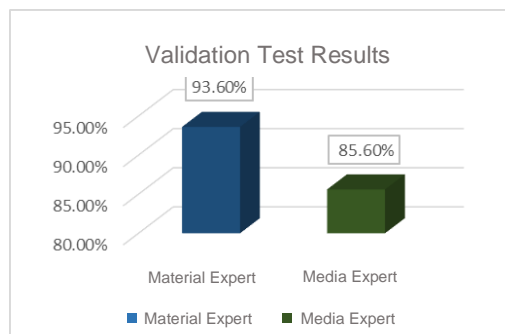


Picture 2. Main Menu Section Design



Picture 3. Material Content Section Design

After all the contents of the E-Module in the form of text, images, sound, and links are included in the E-Module learning media, then the researcher exports the files to HTML (links) so that later they can be accessed through websites with an internet network. The next step is to test the validation of material experts and media experts to determine the feasibility of the E-Module being developed. The aspects assessed by material experts are content (material), presentation techniques, and language. The aspects assessed by media experts are cover design, content design, presentation techniques, and graphic techniques. The e-module that has been assessed is then revised according to what is assessed by the experts.



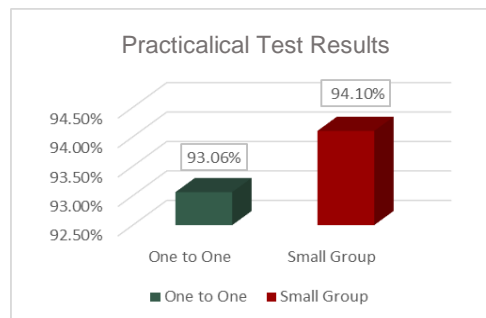
Picture 4. Validation Test Results

The results obtained from the material expert validity test, namely 93.6%, fall into the "Very Valid" category. The results obtained from the media expert validity test, namely 85.6%, fall into the "Very Valid" category. Learning media is said to be feasible to be tested with revision. After making revisions, the learning media of the Head Massage E-Module are said to be suitable to be used as independent learning resources in the subjects of Hair Care, Pratata, and Hairdressing.

4. Implementation

After going through the validation stage by material experts and media experts, a practicality test was then carried out by going through 2 stages, namely an individual test (one to one) conducted on 3 students and a limited test (small group) conducted on 30 students. The aspects assessed are content (material),

presentation techniques, and language. The practicality test was carried out using a questionnaire via the Google form and filled out based on a Likert scale.



Picture 5. Practicality Test Results

The results of the one to one practicality test, namely 93.06%, fall into the "Very Practical" category and can be continued with the small group test stage. The results of the small group practicality test, namely 94.1%, fall into the "Very Practical" category. Thus, the learning media of the Head Massage E-Module is said to be practical for use as a source of independent learning in the courses of Hair Care, Pratata, and Hairdressing

5. Evaluation

Based on the calculation of the value of the results of the validity test and practicality test, after revising according to the suggestions, the learning media for Head Massage E-Module is feasible and practical for and used as a source of independent learning in the subjects of Care, Pratata, and Hair Styling.

D. Conclusion

Head Massage E-Module learning media as an independent learning resource for students of the Cosmetology Study Program in the Grooming, Pratata, and Hairdressing courses was developed using the Research and Development (R&D) research method with the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation) by Dick and Carry. E-Modules are made using the Canva application, because they can create interactive E-Modules, containing text, images/illustrations, quizzes, audio/music, and relevance related to head massage material which can assist the learning process. After being developed, the E-Module is packaged in the form of a website to make it easier for users to access and not limited in time and space.

The E-Module product has gone through the validation test stage by material experts and media experts. Validation from material experts showed results of 93.6% and validation from media experts showed results of 85.6%. Based on the

results of the validation test, it can be concluded that the E-Module Head Massage learning media is appropriate to be used as a source of independent learning in the courses of Hair Care, Pratasta, and Hairdressing.

Besides being declared feasible based on the results of the validation test, the Head Massage E-Module has also gone through a practicality test which was carried out in 2 stages, namely the one to one test and the small group test. The practicality test was carried out on students of the 2018 and 2019 Cosmetology Study Program who had already received the Grooming, Pratasya, and Hairstyling courses. In the one to one test, the result was 93.06% and in the small group test, the result was 94.1%. Based on the results of the practicality test, it can be concluded that the Head Massage E-Module is practical to use as a source of independent learning in the courses of Treatment, Pratata, and Hair Styling.

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