Development of Flipbook Media for Deaf Students in Hair Care Course in Cosmetics Education Program, State University of Surabaya

Novia Restu Windayani[1,*], Maspiyah Maspiyah[1], Trisnani Widowati[2], Biyan Yesi Wilujeng[1], Octaverina Kecvara Pritasari[1], Ronggo Alit[1], Acep Ovel Novari Beny[1]

[1] *Faculty of Engineering, State University of Surabaya, Surabaya, Indonesia*
[2] *Faculty of Engineering, Semarang State University,Semarang , Indonesia*
[*]*Corresponding author. Email: noviawindayani@unesa.ac.id*

ABSTRACT

Technological development is an innovation in the learning process, one way to overcome learning problems. The purpose of this study was to develop and produce Project-based learning flipbook media products for hair care courses. The development model used to produce the product is the ADDIE model, through five stages: analysis, design, development, implementation and evaluation. The method used in this research is descriptive qualitative by means of interviews, documentation studies and observation. Stages of the research method: conducting interviews, conducting documentation studies, conducting observations, compiling instruments for feasibility of flipbook learning media, compiling flipbook frameworks for hair care in cosmetology education study programs, validating learning media experts, conducting flipbook feasibility tests, analyzing flipbook eligibility results, applying media learning with cellphones or PCs for students with special needs in Cosmetology Education Study Program. The independent variable used was students with special needs in cosmetology education study program at Surabaya State University. The results of the study showed that Flipbook Learning Media for Abk Students in Hair Care Courses was appropriate in using Flipbook Media 3 ,2 . Concluded that the learning process uses flipbook media technology with feasibility for students of the S1 Cosmetology Education Study Program, Surabaya State University.

Keywords: *Media Flipbook, Deaf Students, Hair Care.*

1. INTRODUCTION

The development of information technology has made a change in the paradigm of the conventional learning process which is now digital. The use of learning media is one of the tools used to assist in the learning process, as is the case for learning for deaf disabilities. Learning using Deaf is a breakthrough to make it easier for students to participate in learning, with lots of practical material making it easier to learn using Deaf. According to Tafiandi (2020: 85) E-learning is a learning model made in a digital format and presented in an electronic device. The existence of the implementation of E-learning learning is an opportunity for educational facilities that can be received evenly with the same quality . This is very much needed for Deaf Disability students, which in accordance with Law No. 8 of 2016 states that Persons with Disabilities are any person who experiences physical, intellectual, mental, and/or sensory limitations in the long term who interacts with the environment may experience barriers and difficulties to participate fully and effectively with other citizens on the basis of equal rights.

Hair care is one of the compulsory subjects for students of the Undergraduate Cosmetology Education Study Program, so in this case innovation in learning is carried out to make it easier for Deaf students to learn and understand material. In this material there are several deaf students who easily understand so that it is in accordance with the results of their practice but there are also some who do not understand enough so that they have difficulty in learning Learning media are all

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tools and materials that can be used for educational purposes such as radio, television, books, newspapers, magazines and so on. According to [1] Kustandi & Sutjipto (2011) tools such as radio and television if used and programmed for education are learning media. AECT (Association for Education Communication and Technology) in Sadiman, et al. Explains that: With the inclusion of various influences into the realm of education such as printing science, behavior (behaviorism), communication, and the rate of development of electronic technology, the media in its development appear in various types of formats (print modules, films, television, frame films, serial films, radio programs, computers and so on) each with its own characteristics and abilities (Rohman & Amri, 2013).

In accordance with research [2] Setyawan, et al (2018) which states that sign language is used in daily communication among deaf and mute sufferers. One of the difficulties is how the deaf can inform the sign language that is used and can be understood by people who can hear so that deaf people can communicate, interact, socialize, make friends, and dialogue occurs in daily life. The "PankoTuli" application prototype is designed to help reduce the difficulties faced by the deaf and mute. It is with the title: Android Tablet-Based Communication Board Application Design as Learning and Communication Media for Deaf Children.

Whereas in the research entitled Development of Circle Learning Media Using Android-Based Augmented Reality for Deaf Students, which has the conclusion that circular learning media using Android-based augmented reality fulfills the valid and practical criteria of a product development. The validity of learning media is based on the results of the assessment of both material experts and media experts who are in very good category. Meanwhile, the practicality of learning media is shown by the very good responses of deaf students, this is in accordance with research [3] Andriyani, et al (2021).

The results of an interview with one of the students stated that innovation made it easier for him to learn, and the writing below made it easier to study at home too. The purpose of this study 1) To find out the process of compiling Flibooks to train the visual and motor skills of deaf disabled students in the Cosmetology Field. 2) To find out the feasibility of a Deaf-Based Flibook (Deaf Study Room) to train the visual and motor skills of deaf disabled students in the Cosmetology Field. Based on the results of an interview with a student in the Bachelor of Cosmetology Education Study Program named Salma, he stated that he was also a graduate of SMK N 4 Surakarta, where the skill major made him more confident, and the learning process based on ELearning was easier to understand because it could be re-studied at home. it is different if learning directly without media is more difficult to understand so the results are not appropriate. According to [4] Tio Tegar (2019), there needs to be collaboration and collaboration to create conditions for e-learning that are inclusive and universal. According to [5] Bunga Islami (2018), deaf people are more sensitive to learning and obtaining information from visual displays. With interactive designs and visuals, such as animation and visual emphasis (through color and size), it will be easier for deaf people to receive information online. The urgency of this research is that in order to facilitate and expedite the implementation of the Learning Process for the Deaf disabled, it is very necessary to have a Deaf-Based Flipbook (Deaf Learning Room) to train the visual and motor skills of the Deaf.

In research [6] Muallifah, et al (2020) which has the title Inclusive Education Strategy: The Context of E-Learning in Students with Deaf and Blind Disabilities, in this case that E-learning is the latest breakthrough in the world of education by using technology as the main role in learning. So this also has an impact on the education system for students with disabilities. The obstacles and obstacles experienced by students with disabilities are indeed various. The curriculum concept is able to provide direction for E-learning learning. There are factors for success in learning with disabilities, namely: first, the disabled themselves. Second, the family as the closest environment. Third, the local community. Fourth, the policy factor. This is a research reference that I propose, by making modules for students with hearing impairments to help and facilitate the learning process.

Research is also relevant, which has the title Implementation of Social Welfare Policy on Social Adaptation of Students with Disabilities in the Learning Process. The conclusion in this study is that learning is effective because of the implementation of the class E-learning platform, it can innovate teachers in the learning process so that it can improve the quality of learning and improve student learning outcomes , which was studied by [7] Riana, et al (2019). In this case, they have similarities in terms of the existence of a learning innovation for students to improve students' abilities.

The research entitled Development of Learning Modules in the Form of Pop-Ups and Smash Books Material on the Properties of Light for Students with Deaf Disabilities according to research [8] Tyra, et al (2019), concluded that the Science (Physics) learning module in the form of popups and smash books material on the Properties of Light stated feasible by the media validator and material validator with the percentage of media eligibility with hearing impairments, this is related to research related to learning modules for students with disabilities who have an eligibility.

Flipbook or Digital book is a form of presenting book learning media in virtual form. Not rejecting the possibility of utilizing modern tools in accordance with

the demands of scientific and technological developments. One of the learning media that is expected to create an interesting, conducive learning atmosphere and media that distributes material for learning, especially physics, is easy and efficient, namely by using flipbook media in hair care courses.

Some of the advantages that make BSE more attractive to teachers than conventional textbooks include, BSE or e-books are easy to obtain by downloading the official Depdikbud website, suitability of content with the curriculum, do not know expiration, and the language is easy to understand. However, in its use in BSE schools or e-books, it still has weaknesses that need improvement. BSE or e-books that are packaged don't have more value than other printed books that are widely circulated. Supposedly, BSE or e-books are capable of displaying interactive simulations by combining text, images, audio, video and animation, so that learning can take place more interesting and enjoyable.

2. METHOD

This research model uses a research and development model that is used to produce certain products and test the effectiveness of a product. The development model used is ADDIE (Analyze, Design, Develop, Implementation and Evaluation). The development model was chosen because it aims to produce Deaf -based Media Flipbooks for Disabilities.

Research Subjects The subjects in this study were Deaf Cosmetology Students and Students. Place and Time of Research This research was conducted starting in January 2023, in the S1 Cosmetology Education Study Program, Faculty of Engineering, Surabaya State University. Research Instruments The instrument used in this study was the Deaf media feasibility instrument Deaf. How to use the instrument by putting a tick (√) on each aspect of the assessment 1 if it is not good, 2 if it is not good enough, 3 if it is good enough and 4 if it is good.

Data Collection Techniques Data collection techniques were carried out by means of interviews, observation and documentation. Data Analysis The technique used to analyze the results of the quality assessment of RUNGU-Based Media (Deaf Study Room) is by looking at the results of assessments from material and media experts. The analysis was carried out by calculating the average score of the observer's assessment of each component of the media developed. The steps of data analysis are as follows.

1. Tabulate all data obtained from the raters for each component, sub-component of the assessment items available in the assessment instrument.
2. Calculate the average total score of each component using the following formula.

To analyze the results of the material and media expert's assessment given by 4 experts on the quality of the RUNGU Media (Deaf Study Room) the following provisions are used.

1. Not good : (1.00-1.99)
2. Fairly good : (2.00-2.99)
3. Good : (3.00-3.49)
4. Very Good : (3.50-4.00).

One of the R&D research procedures developed by *Dick and Carry* (1996) is the ADDIE development model. According to (Warsita: 2011) the ADDIE development model is a development model that is based on an effective, dynamic system, and supports learning media development procedures. *Dick and Carry* divides the stages of the development model into 5 stages of development namely; (1) needs analysis stage (*Analysis*), (2) Design stage *(* 3) Development stage (*Development*), (4) product trial stage (*Implementation*), (5) Evaluation stage (*Evaluation*). The stages of *e- Module* development with the ADDIE development model can be seen more clearly below.

1. Analyze The activity begins with collecting data and information by conducting interviews with students of S1 Cosmetology Education study program with hearing impairments, collecting supporting data, and making observations on supporting data in preparation for developing RUNGU-based Flipbook Learning Media (Learn Room). Deaf) Deaf Disabilities
2. Design Develop a framework for developing Deaf-based Flipbook Learning Media (Deaf Study Room) for Deaf Disabilities
3. Based on Deaf Disabilities, which includes LKPD, worksheets, worksheet keys, question sheets and others.
4. Develop and Implement a. Develop validation instruments b. Perform instrument validation c. Compiling Deaf Media, d. Expert validation (feasibility of material content, presentation feasibility, language feasibility and graphic feasibility), e. Revise according to expert input
5. Evaluate This stage aims to test the Deaf Disability Flipbook Learning Media (Deaf Study Room) which has already gone through the first revision stage.

3. RESULT AND DISCUSSION

The validators consist of two Media Experts and three Material Experts who are experts in the field of beauty; the next stage is the response of users (lecturers and students) to find out the practicality test of flipbook

learning media carried out by media and material experts, to find out how practical the media is made in.

Response Indicator	Feedback Items	Expert 1	Expert 2
$\sum x$		131	1 29
$\bar{x}$ Average Response Items		4.09 _	4, 03
$\bar{x}$ Media Expert		4.06	
n		32	

Figure 1 Aspects of graphic feasibility according to BSNP.

3.1. Implementation

The fourth stage of R&D research (research and development) with the ADDIE model is the implementation stage or also known as the application stage. Application at this stage can run if the results of the expert test (feasibility test) and practicality tests carried out by users (Lecturers and Students) meet the feasible and practical criteria. Implementation is the application stage

3.2. Evaluation

The next stage in R&D research (research and development) is the evaluation stage, at this stage improvements will be made to a better system by processing the data that has been obtained from the previous stages that have been carried out. This evaluation is carried out after the four previous stages in the ADDIE model have been completed.

3.2.1. Formative Evaluation

In formative evaluation development research related to module feasibility tests conducted by Media Experts and Material Experts. This formative evaluation is also related to the practicality test of the module, formative evaluation is carried out in the context of repairing or revising the module. The formative evaluation phase is related to the implementation phase, so that the modules developed are in a very feasible and practical condition. This agrees with Scriven (1967) that formative evaluation can identify deficiencies in a product that is developed and repairs or revisions are made so that it is better and more feasible.

AUTHORS' CONTRIBUTION

The author in this case has their respective contributions in each of their duties, including:

a. Novia Restu Windayani: As Chair in this research, and correspondence in making articles
b. Trisnani Widowati: Making instruments in research
c. Acep Ovel Novari Beny: Production of media suitable for the field of disabilities
d. Biyan Yesi Wilujeng: Writing articles and as correspondence

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The developed RUNGU Flipbook Learning Media is included in the very practical category. Module practicality research includes; interest in flipbook media, material, language, and competency. The average score for the practicality test of the module is x = 78%. The developed flipbook is in the very proper category, this is based on the responses of media experts who are experts in the field of modules and material experts who are experts in the field of Beauty. Based on the responses of 3 Material Experts which include, as follows; Feasibility of flipbook content, Presentation, Linguistics, Contextual. Meanwhile, the media expert's responses provide responses to the graphical aspects of the module. The average score of Material and Media Experts is 4.06 with very decent criteria.

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