

Development of E-magazine Based on Flipbook Maker on the Pattern Drafting Home Clothing in the Faculty of Engineering Medan State University

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ABSTRACT

In online learning, lecturers need to modify/develop learning media so that students don't experience difficulties in understanding the learning material. The purpose of this study are: (1) To know how is media development flipbook maker based e-magazine on the pattern drafting of home clothing (2) To know the effectiveness flipbook maker based e-magazine media on the pattern drafting of home clothing. The development model used in this research is the ADDIE. the development procedure (1) Analysis, namely identifying products that are in accordance with the goals of students. (2) Design are, includes designing the initial product and the pattern drafting home clothing. (3) Development, e-magazine media based on Flip book maker will be developed by research hers according to a predetermined design. (4) Implementation (5) Evaluation is carried cut in the form of evaluation formative.

KEYWORDS

development of media; e-magazine; flipbook maker; patterns; home clothing; pattern drafting; fashion

INTRODUCTION

The COVID-19 pandemic has brought about tremendous changes in the world of education. The Covid-19 pandemic has affected all education systems from pre-school, primary, secondary to tertiary institutions. Based on the ABC News report on March 7, 2020, school and college closures have occurred in more than a dozen countries due to the Covid-19 pandemic (Purwanto, et al., 2020).

The Ministry of Education and Culture (2020) explained that The Indonesian government through the ministry of education and culture issued circular letter number 3 of 2020 regarding the prevention of covid-19 in education units in anticipation of the spread of the corona virus in schools and universities. Following up on the circular, universities have eliminated face-to-face learning and conduct online learning. Therefore, universities as higher education institutions must be able to follow developments that occur and be able to produce graduates who are skilled, professional, independent, and able to compete in various fields of life. In online learning, lecturers need to modify/develop teaching materials so that students do not experience difficulty in understanding the learning material.

The Fashion Design Education study program is one of the study programs that is in great demand by various high school or vocational high school graduates. Graduates of this study program are expected to have competence in the field of education, be professional in the field of clothing, mature personality qualities and be able to adapt to the times in line

with the demands of advances in science and technology as well as arts and culture that are future-minded. In order to be able to prepare prospective educators who are professional in the field of fashion.

The basic women's clothing course is a productive course that students must pass as a prerequisite to be able to take the next course. This course contains theoretical concepts and skills in making women's clothing. This course is given to second semester students of the UNIMED Fashion Education study program. The learning achievement in this course is that students are able to make home clothes

Based on observations, in the basic women's clothing course, many students experience difficulties on the pattern drafting of home clothing in which are one of the learning outcomes of the course, especially most students are from high school and must do online learning. This can be seen from the results of changing the pattern of home clothing, which still have many errors. In addition, there is no learning media that makes it easier for students to make home clothing patterns independently at home

Through the results of observations, the difficulties experienced by lecturers in providing online learning are developing instructional media that are in accordance with the courses, especially practical courses. In practical courses, students are not only required to understand theory but also must have skills in certain fields. So far, the learning media used by lecturers is dominantly monotonous and makes students feel bored or bored. The dominant learning is not yet interactive, and the learning tends to be an online task so that the absorption of the subject matter is very minimal.

Based on this, the researcher wants to develop an online learning media, namely an e-magazine based on a flipbook maker on house dresses patterns drafting that can be accessed anywhere and anytime and is able to increase enthusiasm for learning even though they are independent at home and will also make it easier for students to understand on the pattern drafting of home clothing.

Nurjannah (2014) explained that Electronic magazine (electronic magazine), or abbreviated as e-magazine is an electronic version of the magazine because it is based on electricity. Electronic magazines no longer use paper raw materials to write articles like magazines in general, but in the form of digital files that can be accessed through electronic media such as computers, laptops, mobile phones, Android, iPhone, iPad and other technologies. Meanwhile, flipbook maker technology allows students to enjoy magazine learning media not only in written form, but also in the form of images, sound, and video.

The use of an e-magazine based on a flipbook maker will greatly assist the effectiveness and activeness of students in the learning process as well as in delivering information online. The presence of media in learning can also help increase student understanding, presenting data or information more attractively.

LITERATURE REVIEW

Definition of Development

According to Ellen & Clarebout (2008: 706) development is a systematic effort to generate or collect various theoretical statements. Theoretical statements in instructional technology generally have some kind of guidance that is considered relevant in instructional technology or instructional design.

Self Help Book is a companion book that used to give the information about process help self-recovery. Usually the recovery is related with personal problem and the emotional that caused a negative impact if they do not overcome it immediately. Self help book chosen because relatively easy to get in any condition. Self help book is also cheaper

rather than having to go to other professionals and it does not spent much time because it could be read anytime.

Development according to Richey and Klein (2007: 1) is the process of translating design into physical form related to systematic learning design, development and evaluation processes with the aim of establishing an empirical basis for creating new learning and non-learning products or development improvement models that are already. In line with that, Sugiyono (2014: 5) argues that development means deepening and expanding existing knowledge.

Development research focuses its study on the field of design or design, whether it is a design model and the design of teaching materials, products such as media, teaching materials and processes. Development research aims to produce new products through the development process.

Definition of Learning Media

According to Criticos in Daryanto (2015: 4) The word media comes from Latin, whose singular form is medium. Media is one component of communication, namely as a messenger from the communicator to the communicant. Based on this definition, it can be said that learning media is an intermediary tool in the learning process).

The same opinion is also explained by Munadi (2008: 7) who defines learning media as everything that can convey and distribute messages from sources in a planned manner so as to create a conducive learning environment where the recipient can carry out the learning process efficiently and effectively.

In line with that, Djamarah and Azwan (2010: 121) reveal that learning media are any tool that can be used as a channel for messages to achieve learning objectives. In the context of the media as a learning resource, broadly the media can be interpreted as humans, objects, or events that allow students to gain knowledge and skills.

In essence, the various opinions expressed above contain the same basic meaning. In communicating we need media or facilities. In general, the meaning of media is anything that can channel information from information sources to recipients of information. So learning media is "software" in the form of messages or educational information that is presented by using an assistive device (Hardware) so that the message/information can reach students. Here it is clear that media is different from equipment but both are elements that are interrelated with each other in an effort to convey educational messages/information to students.

Media E-magazine based on Flipbook Maker

According to Weiner (2007), electronic magazine is taken from French, namely magazine, which comes from Italian, namely magazzino, which means warehouse. Magazine is a publication media that is printed on certain paper. While E-magazine is a magazine to distribute information based on internet network.

Electronic magazine or abbreviated as e-magazine is an electronic version of the magazine because it is based on electricity. Electronic magazines no longer use paper raw materials to write articles like magazines in general, but in the form of digital files that can be accessed through electronic media such as computers, laptops, mobile phones, Android, iPhone, iPad and other technologies (Nurjanah, 2014).

In making the e-magazine, the Kvisoft Flip Book Maker application is used. Flip Book Maker is an application for creating e-books, e-papers, and e-magazines. Flipbook means a book that flips over. Flipbooks have characteristics that can be opened and flipped over like a magazine or book in general. Flipbook maker has design templates and features such

as backgrounds, control buttons, navigation bars, hyperlinks and backgrounds (Hidayatullah 2016).

This electronic magazine was created using Kvisoft Flip Book Maker, previously the magazine was designed using Corel Draw X5, so the file format is in the form of pdf. This e-magazine contains material about patterns drafting in home clothing.

Overview of Home Clothing

According to Amaliyah (2015) Home clothing is casual clothing worn inside the house. Usually loose extending to the bottom, and has a front opening. Home clothing is clothing that is often used by mothers for everyday life.

In line with that, according to Arifah and Liunir (2009), a person at home can carry out various activities, including work, receiving guests, relaxing. In principle, clothing for home occasions is a simple, practical model, using textile materials that are easy to care for and not harmful to the wearer when carrying out activities.

Dressing in activities at home must still be polite according to dress etiquette, such as when receiving guests, should not use clothes to sleep. Also do not use luxurious clothing with models that are not practical so that it interferes with the activities carried out.

According to Prapti (2003: 8) Home clothing can be divided into several types:

- 1) Sleepwear: negligee, pajamas, baby doll etc.
- 2) Dress for receiving guests: skirt/blouse, trousers, shirt, T-shirt, bebe etc.
- 3) Work at home clothing: over-all, apron, slacks with T-shirt etc.

Furthermore, the definition of various home clothes according to Riyanto (2003)

- 1) Baby dool is a women's sleepwear consisting of shorts and a blouse.
- 2) Bebe or dress is clothing for girls or adults consisting of the top and bottom into one, either connected at the waist, at the hip or without a connection. The skirt can be short or long, depending on the desired model, can be worn at home or out of the house, depending on the model and material.
- 3) Room coat is a dress in the form of a long coat without buttons, tied with a belt from the same material, worn in a room or home in a relaxed state before someone makes up. This bedroom suit is available for women, men and children, it can be made of flannel or satin and if it is made of towels it can be used to go to the bathroom.
- 4) Pajamas are sleepwear consisting of trousers and blouses for children, women and men with different models.

From the above opinion it can be concluded that home clothing is clothing that is used for daily activities in the house or surroundings. Home clothing has a relaxed, loose impression, uses simple materials, is not thick and can absorb sweat, the shapes and designs are not too complicated, and the colors are not flashy so it doesn't make it difficult for the wearer to carry out activities.

In this study, the home fashion model that will be made is in the form of an adult female bebe with a connection detail at the waist, an opening in the middle of the front and a bebe length below the knee.

Pattern Drafting of Home Clothing

According to Porrie Muliawan (2006) the notion of pattern in the field of sewing means pieces of cloth or paper that are used as examples to make clothes. No matter how good the clothing design is, if it is made based on an incorrect pattern and the lines of the pattern are not flexible such as the curve of the sleeves, neck circumference, then the clothes will not be comfortable to wear.

Women's clothing requires a more careful pattern drafting technique than men's and children's clothing. Women's clothing that is made should be able to highlight the feminine side of women and be able to highlight the advantages it has so that in appearance it looks beautiful, neat and attractive. For this reason, in making clothing, it is necessary to break the correct pattern according to the design and body shape of the wearer.

Pattern breaking (broken model, pattern drafting) is the process of changing the basic pattern into a pattern that fits the fashion model. The trick is to move the pleats, cut, connect, or lengthen and shorten (increase or decrease the size) in certain parts of the basic pattern (Pratiwi, 2001)

For beginners, breaking patterns is a difficult thing to do during the pattern-making process. For this reason, the development of Flipbook Maker-based E-Magazine media is expected to make it easier for students who are just learning to make patterns to understand pattern breaking techniques, especially in home clothing.

Breaking patterns is done simpler and easier to understand because the media is designed to be attractive and displays videos on how to break patterns easily.

RESEARCH METHODS

Development of E-magazine Based on Flipbook Maker on the Pattern drafting of Home Clothing is a type of research and development (Research and Development or R & D).

Research on the Development of Flipbook Maker-Based E-Magazine Media on the Pattern drafting of Home Clothing was carried out at the Fashion Design Study Program, Family Welfare Education Department, Faculty of Engineering, State University of Medan for Semester II / Even Students of the Fashion Design Study Program for the 2020/2021 academic year in April – June 2021.

The development model used in this study is the ADDIE development framework. The development procedure in this study consists of five stages, namely Analysis (analysis), Design (planning), Development (development), Implementation (implementation) and Evaluation (evaluation).

The trial implementation of media products is carried out after the initial draft product design is validated by media experts and material experts consisting of practitioners and lecturers of fashion. A small group trial was conducted on 9 students of Fashion Design Education at the State University of Medan aimed at knowing the limitations of the flipbook maker-based E-magazine media in terms of understanding the material and concepts presented in the media so that later it can be used as a learning medium in the learning process.

A group trial is being conducted with 18 students of Fashion Design Education at the State University of Medan to assess the flipbook maker-based E-magazine media after being revised from the previous small group trial.

The last stage is a large group trial conducted on 33 students of Fashion Design Education at the State University of Medan to test whether the product is attractive, effective and suitable to be used as a learning medium for Pattern drafting of Home Clothing

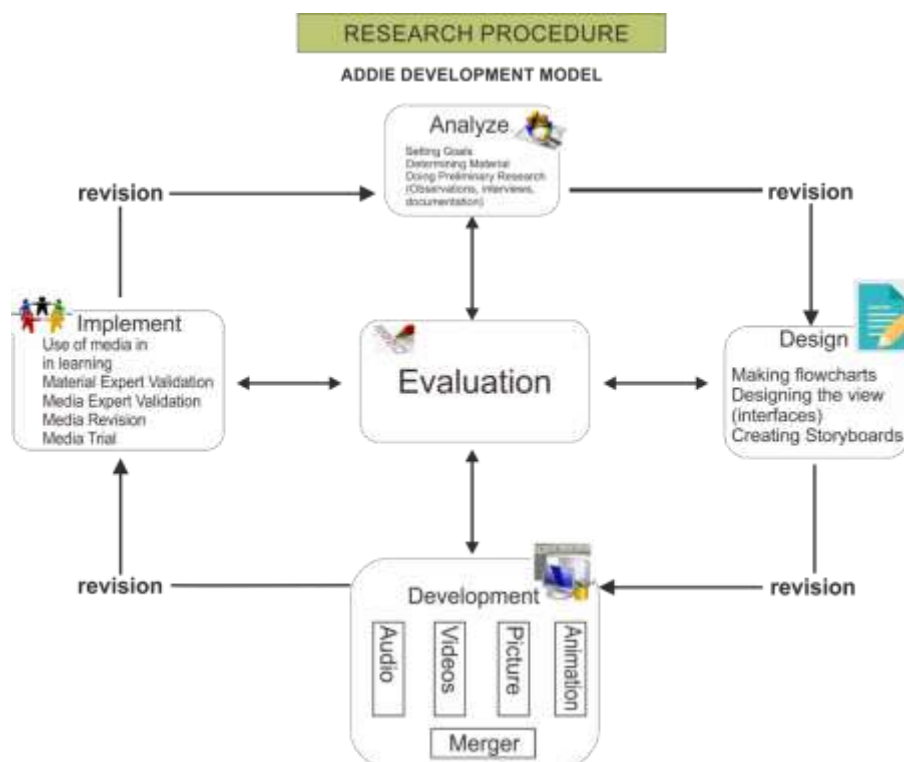


Figure 1. Research procedures using the ADDIE development model (Branch, 2009)

RESULTS AND DISCUSSION

Results

Flip Book Maker is an application for creating e-books, e-papers, and e-magazines. Flipbook means a book that flips over. Flipbooks have characteristics that can be opened and turned over like a magazine or book in general. Flipbook maker has design templates and features such as backgrounds, control buttons, navigation bars, hyperlinks and backsounds (Hidayatullah, 2016). This electronic magazine was created using Flip PDF corporation, previously the magazine was designed using Corel Draw X5, so the file format is in the form of pdf. This e-magazine contains material about pattern drafting of home clothing.

This development research starts from the needs analysis given to students and lecturers. The first process that is carried out is to conduct observations, interviews and documentation by analyzing the needs of fashion students at the Medan State University. Analysis of student needs was carried out by distributing questionnaires to even semester students as many as 33 students and analyzing the needs of lecturers to 2 lecturers who had taught in women's basic clothing courses, especially on the Pattern drafting of Home Clothing. The analysis was carried out by distributing a needs questionnaire, with the results of collecting data on the needs of lecturers (88.75%) and student needs (84.27%) indicating that the media is needed to support the teaching and learning process. Needs analysis in the development of Flipbook Maker-based e-magazine media on the pattern drafting of home cloting is carried out in several stages, namely: reviewing the curriculum and identifying the materials needed for the development of Flipbook Maker-based e-magazine media on the pattern drafting of home clothing.

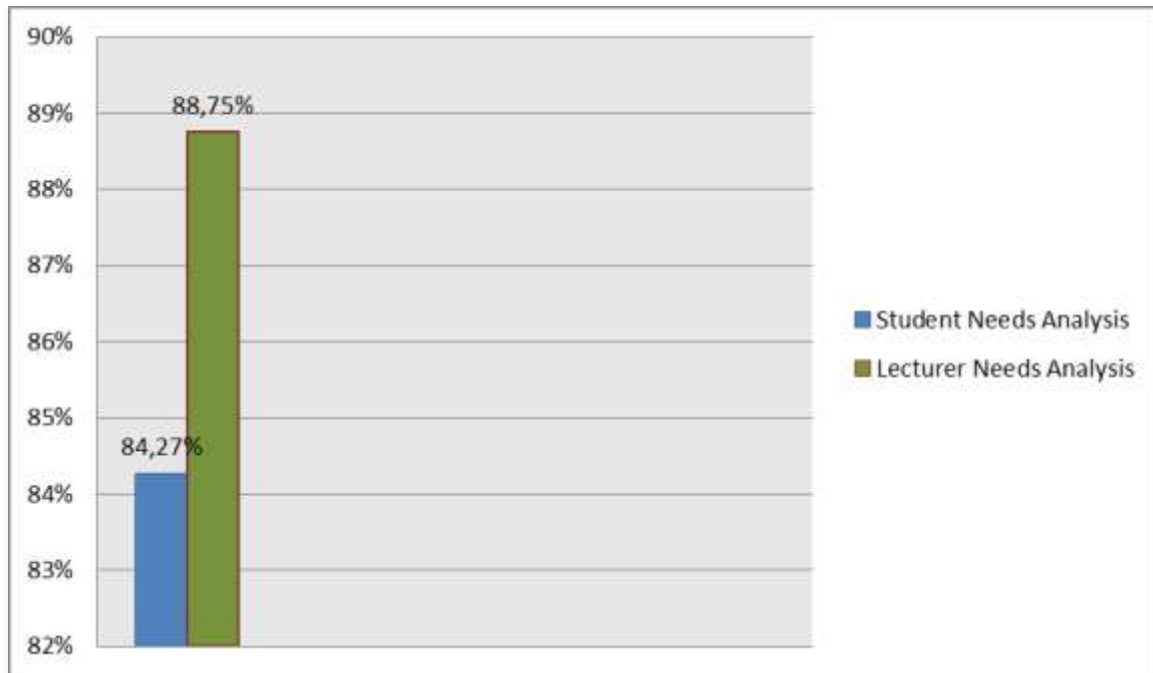


Figure 2. Percentage Diagram of Student and lecturer Needs Analysis Questionnaire Results

The initial product development of the Flipbook Maker-based e-magazine media is to create a storyboard containing a cover, table of contents, introduction, instructions for using media, basic competencies, learning objectives, materials, exercises, and bibliography.



Figure 3. Sample of Display material of the pattern drafting of home clothing

The next stage of developing an e-magazine media based on Flipbook Maker on the pattern drafting of home clothing is a feasibility test or validation by media experts and material experts. Material expert validation aims to provide input and evaluate the material on the pattern drafting of home clothing. The assessment of all aspects carried out by material experts is the aspect of the feasibility of the content of the material with a percentage of 90% and the presentation of the material with a percentage of 94.3%. The total average value of all aspects is 92.15%. Validation by media experts aims to provide input and evaluate the Flipbook Maker-based e-magazine media on the pattern drafting home clothing. The results of the media feasibility test can be concluded by media experts on the feasibility aspect of media content with a percentage of 91%, visual presentation

aspects with a percentage of 90.94%, benefits aspects with a percentage of 91.14%. The total average value of all aspects is 91%. These data indicate that the flipbook-based e-magazine media on the pattern drafting of home clothing is in the very good category and is feasible to use.



Figure 4. Material Expert

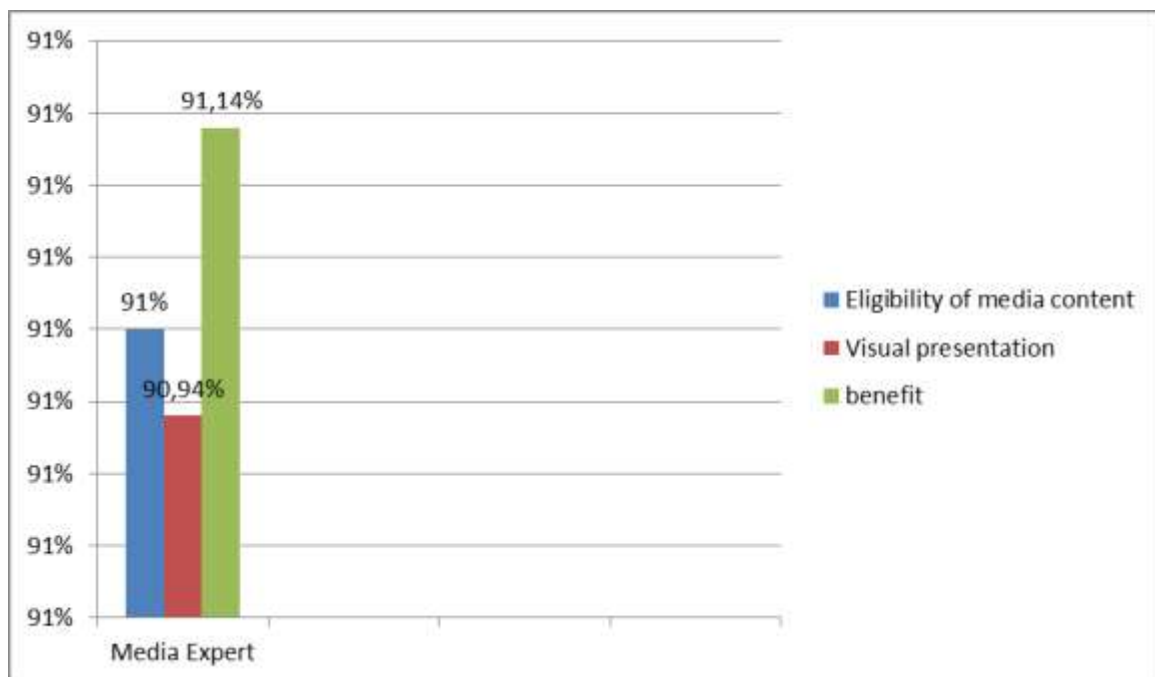


Figure 5. Media Expert

The next stage of development is a small group trial which aims to identify the shortcomings of the Flipbook Maker-based e-magazine media product. Small group trials were conducted on 9 students to see the quality of Flipbook Maker media on the pattern drafting of home clothing with the results of the assessment (81%) being in the "good" criteria. Next is the medium group trial which was conducted on 18 students with the results of the assessment being (85%) with the criteria of "good". In the next stage, a large group trial was conducted on 33 students (87%) with "good" criteria. After testing a group of small, medium and large, it can be concluded that the e-magazine media flipbook maker based on the pattern drafting of home clothing fit for use and can proceed to the next stage.

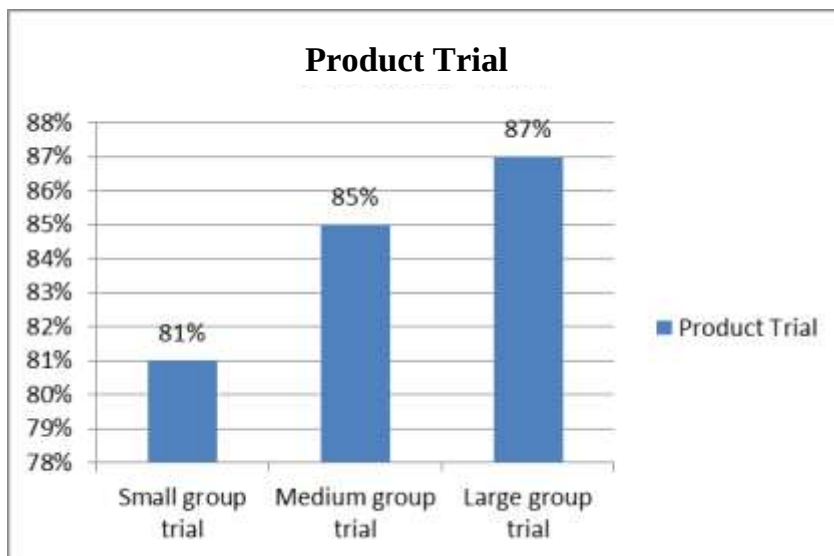


Figure 6. Percentage diagram of small group, medium group, and large group trials

The next stage is to test the effectiveness of the Flipbook Maker-based e-magazine media on the pattern drafting of home clothing, carried out by 35 students and 2 lecturers. Based on the results of student responses to the effectiveness test, the average percentage was (92%) with the "very good" criteria, while the results of the effectiveness assessment for 2 lecturers were (88%) with the "good" criteria. Description of the results of assessing the effectiveness of students and lecturers of the e-magazine media declared Flipbook Maker based on the pattern drafting of home clothing effective for use in the course of a woman's basic fashion. This is reinforced by Setiyo (2018). The use of flipbooks can also increase understanding and increase the achievement of learning outcomes.

CONCLUSION

The results of this study are in the form of an e-magazine media based on Flipbook Maker on the pattern drafting of home clothing for students of Medan State University. Validation by material experts stated that (92.15%) "very good" material was used because it had met the content eligibility standards (90%) "very good" and presentation of material (94.3%) was "very good". Validation by media experts stated that overall (91%) media was "very good" with media content feasibility aspects with a percentage of 91%, visual presentation aspects with a percentage of 90.94%, benefits aspects with a percentage of 91.14%. The trial is a small group (81%) are currently on the criteria of "good". Next is the moderate group trial, the results of the assessment are (85%) with "good" criteria. The next stage is a large group trial (87%) with "good" criteria.

The effectiveness of the Flipbook Maker-based e-magazine media product on the pattern drafting of home clothing is concluded that the developed media is effectively used as a medium for learning women's basic clothing, especially on the pattern drafting of home clothing. The results of the student effectiveness assessment were (92%) with the "very good" criteria, while the results of the lecturer effectiveness assessments were (88%) with the "good" criteria. From the results of the assessment of the effectiveness of students and lecturers, it is stated that the Flipbook Maker-based e-magazine media is effective for use in learning basic women's clothing with pattern drafting of home clothing.

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