

# **DEVELOPMENT OF FLIP BOOK-BASED ECONOMICS TEACHING MATERIALS TO IMPROVE THE ECONOMIC LEARNING OUTCOMES OF STUDENTS IN CLASS XI MAN 2 DELI SERDANG IN ACADEMIC YEAR 2021/2022**

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**Abstract:** The purpose of this study was to (1) determine the feasibility of flip book-based economics teaching materials in improving economic learning outcomes for class XI MAN 2 Deli Serdang students. (2) Knowing the effectiveness of flip book-based economics teaching materials in improving economic learning outcomes for class XI MAN 2 Deli Serdang students. This type of research is R & D research using the Borg and Gall development model. The subjects of this study consisted of two material experts, one learning media expert, one learning model expert, and 60 students of class XI MAN 2 Deli Serdang. As an object in this study, students' responses to learning media and student learning outcomes tests. The results showed (1) the expert test of learning materials was in the very good classification (94.44%), (2) the learning media expert test was in the very good classification (96.00%), (3) the expert test of the learning model was very good classification (95.18%). Based on the results of the learning tests, it is known that the average value of the control class is 67.69 and that of the experimental class is 85, and the two classes have a difference in value of 17.7. The results of the submission of the hypothesis prove that (1) Flipbook-Based Economics Teaching Materials to Improve Economic Learning Outcomes of Class XI MAN 2 Deli Serdang Academic Year 2021/2022 are appropriate for use (2) there is a significant difference between student learning outcomes using flipbook-based economics teaching materials with the learning outcomes of students who use textbooks. This is indicated by the results of data processing on the results of the post test obtained  $t_{count} = 10.691$ . At a significant level ( $\alpha = 0.05$ ) with  $dk = 58$  obtained  $t_{table} = 1.167$  so that  $t_{count} > t_{table}$ . The average effectiveness of learning outcomes in the use of flipbook-based economics teaching materials is 85%, while the group of students who use textbooks is 68%. From this data it proves that the use of flip book-based economics teaching materials is more effective in increasing students' knowledge and competence in learning national income than without using flip book-based economics teaching materials.

**Keywords:** Flip Book-Based; Economics Teaching; Outcomes of Students.

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## INTRODUCTION

Progression of Human Resources (HR) is a dominating supporting factor in various institutions, including in the field of education, good quality human resources are needed in the world of education, for the implementation of the role of education and also includes situational and predictive needs. For this reason, it is very important to form quality human resources through education.

Broadly education is a learning activity that takes place throughout the ages in all situations of life activities, while narrowly education is teaching held by schools as formal educational institutions. In the National Education System Law no. 20 of 2003, it is stated that education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spirituality, self-control, personality, intelligence, noble character and the skills needed by themselves, society, nation. and country (Permendikbud No 22 Tahun 2016, 2019).

To realize the goals of national education in accordance with the explanation of Article 35 of Law no. 20 of 2003, graduate competency standards are formulated as graduate competency qualifications which include the attitudes, knowledge, and skills of students that must be met or achieved from certain educational units. The implementation of education in schools involves teachers as educators and students as students, this process is realized by the existence of teaching and learning interactions or learning processes as guidelines for a set of rules and plans regarding education

packaged in the form of a curriculum (Illahi, 2012).

The learning process in the 2013 curriculum is regulated in Permendikbud No. 22 of 2016 concerning Learning Process Standards which states that the learning process in educational units is held in an interactive, inspiring, fun, challenging manner, motivating students to be active, and providing sufficient space for initiative, creativity and independence in accordance with their talents, interests and physical and psychological development of students. Each educational unit should carry out learning planning, implementing the learning process and evaluating the learning process to increase the effectiveness of achieving graduate competencies (Permendikbud No 22 Tahun 2016, 2019)

To improve student learning achievement, one of the learning models that can be used is discovery learning. According to (Seel, 1995) discovery learning learning is discovery learning that is learning from contemporary studies in cognitive psychology to encourage the development of more specific methods, whose characteristics are defined as that learners can produce units and structures of abstract knowledge such as concepts and plots by their own inductive reasoning about things that are not abstract in learning materials. In other words, students are able to understand material changes in the form of objects as well as possible and learning feels more meaningful, so that student learning outcomes will increase (Putra et al., 2017).

Menurut (Zulkifli & Royes, 2017) the development of teaching materials is part

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of developing competence and can improve competence as a professional teacher. The main goal of an educator in developing teaching materials is to make learning more effective, efficient, and in accordance with predetermined competencies.

But in reality there are still many educators who depend on conventional teaching materials. Conventional teaching materials are teaching materials that can be directly used without efforts to plan, prepare and compile it yourself, errors in the selection of teaching materials result in students' understanding that is less than optimal in learning so that the learning outcomes obtained do not meet the

specified Minimum Completeness Criteria (KKM) (Zuriah, 2006). This is in line with (Prastowo, 2015) which states that the quality of learning is low when educators are only fixated on conventional teaching materials without any creativity to develop innovative learning.

Based on the results of observations and interviews conducted by the author at MAN 2 Deli Serdang, in the daily test for the even semester Economics subject on national income material, there were several students who had not reached the Minimum Mastery Criteria (KKM), which was  $127:175 = 0.72 \times 100\% = 72\%$  (Incomplete). We can see more details in the following table 1.:

**Table 1. Percentage of MID Scores for Class XI Students of MAN 2 Deli Serdang Academic Year 2020/2021**

Class	The number of students	KKM	Number of Unfinished Students		Number of Completed Students
			(≤ 86)	(≥ 86)	
XI MIA 3	35	86	28 (80%)	7 (20%)	
XI MIA 4	35	86	25 (71%)	10 (29%)	
XI MIA 5	36	86	19 (53%)	17 (47%)	
XI IIS 1	35	86	28 (80%)	7 (20%)	
XI IIS 2	34	86	27 (79%)	8 (24%)	
<b>Amount</b>	<b>175</b>	<b>-</b>	<b>127 (72,72%)</b>	<b>49 (27,86%)</b>	

Source : MAN 2 Deli Serdang

From the table above, it can be seen that students of class XI MAN 2 Deli Serdang still have not achieved satisfactory learning achievements. With the Minimum Completeness Criteria (KKM) 86 in accordance with the provisions of the education unit there are 127 students who

have abilities below the KKM. The results of interviews between the author and the teacher of economics subject, one of the factors that influence student learning outcomes which are still low is the lack of interest in learning students by using printed teaching materials which are

monotonous and less attractive, this data can be seen from as many as 22 students out of 35 or by 62.85% said they had difficulty understanding the presentation of concepts and material. In addition, students also experience boredom in using printed books. From interviews with students it was also known that 24 out of 35 students or around 68.57% said they needed a new teaching material that could give them examples of phenomena in economics learning, especially on national income material. While 11 other students are still unsure in making a choice.

To reduce boredom and increase student learning interest, it is necessary to develop electronic teaching materials. Electronic teaching materials are teaching materials published in digital format, containing writing, images, which can be read through a computer or other digital device. Electronic teaching materials are learning tools designed to help learning both in class and outside the classroom which are displayed in digital format so that they can make learning more interactive. (Anori & Putra, 2013). Likewise with the electronic teaching materials that I will develop, in this module text, visuals and videos will also be displayed which will make students more interested in learning them, the ease of accessing these teaching materials is also an advantage where students only need to access the link to open teaching materials provided. This teaching material is also quite practical and also flexible where students can later easily learn this teaching material (Oktaviara & Pahlevi, 2019).

*"Learning and innovation go hand in hand. The arrogance of success is to think*

*that what you did yesterday will be sufficient for tomorrow."* William G. Pollard. "Pembelajaran dan inovasi berjalan beriringan. Kesombongan dari sukses adalah berpikir bahwa apa yang Anda lakukan kemarin akan cukup untuk hari esok." d William G. Pollard (Furie & Cox, 2013).

One of the electronic teaching materials that can create an interesting and conducive atmosphere is the use of flipbook-based electronic teaching materials. (Mulyadi et al (2016) states that the use of flipbooks can improve students' creative thinking and affect student learning outcomes. A flipbook is a collection of pictures that are combined to give the illusion of movement and into a simple animation sequence on a small book without the need for a machine. Flipbooks that are in great demand by the public are digital books where book pages can be opened and read on digital devices. (Rasiman, 2014) explained that students were more interested in participating in learning using flipbooks. However, according to Nuruliah, Syamswisna, Yokhebed (2017) states that flipbook media cannot be used if 1) the devices used by students do not have internet quota and 2) the strength of the internet they have must make it possible to access the flipbook (Falah & Indana, 2021).

Flipbook-based electronic teaching materials make the appearance more attractive because they can open each page like a book on a computer so that it provides a dynamic effect, the use of flipbooks is also facilitated by being accessible via a link so that students can access learning media anywhere and

anytime, this is a perfect solution. appropriate for the teacher to maximize the learning process, considering that the lesson hours are currently reduced.

## **MATERIALS AND METHODS**

This type of research includes research and development (Research and Development) which is often known as R & D research, which is a type of research that develops a new product or perfects an existing product.

In accordance with the development design used, the types of data extracted are as follows: (1) learning aspects and correctness of content obtained from material experts and learning designs, (2) teaching materials and learning designs obtained from teaching materials experts, (3) quality and presentation material, obtained from individual, small group, and field trials, (4) the attractiveness of flipbook-based teaching materials was obtained from the activities and responses of students during trials of flipbook-based teaching materials for Economics subjects, and (5) the effectiveness of teaching materials was obtained from the results learn about national income material using flipbook-based teaching materials and learning outcomes about national income without using flipbook-based teaching materials (Afwan et al., 2020).

The data obtained is adjusted to the purpose and design of the development used, so the type of data collected in this development is quantitative data as the main data, which is collected through a questionnaire with a scale of 1 to 5 (Likert Scale) (1: very poor, 2: not good, 3: moderate, 4: good, and 5: very good).

Respondents will give an assessment score to each questionnaire based on predetermined criteria. In addition, the type of data collected is qualitative data in the form of descriptions of suggestions and written input by respondents as additional data.

## **RESULTS AND DISCUSSION**

This research is a type of research and development using the borg and gall development model, so that the product resulting from the implementation of this research is Flipbook-Based Economic Teaching Materials to Improve Economic Learning Outcomes. The purposes of this development research were (1) to find out the feasibility of flipbook-based economics teaching materials in improving the economics learning outcomes of class XI MAN 2 Deli Serdang students. (2) Knowing the effectiveness of flipbook-based economics teaching materials in improving economic learning outcomes for class XI MAN 2 Deli Serdang students.

The development of learning media, especially flipbook-based economics teaching materials in improving economics learning outcomes for class XI MAN 2 Deli Serdang students, is complementary to existing teaching materials. Making learning media is expected to be done with careful preparation and planning. Preparation and planning are arranged systematically and developed in accordance with the competence of the syllabus and RPP on national income material, so that the learning media becomes more effective which has been modified into an even simpler research design.

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### Description of Needs Analysis

The process of implementing the development of flipbook-based economic teaching materials learning media is carried out in stages. The initial process in this research and development is conducting a needs analysis and data collection.

This activity was carried out to obtain data regarding the teaching and learning process, characteristics, and learning needs of students, problems that exist in learning and media development needed during the learning and teaching process.

The process of implementing the development of flipbook-based economic teaching materials learning media is carried out in stages. The initial process in this research and development is conducting a needs analysis and data collection. This activity is carried out to obtain data regarding the teaching and learning process, characteristics, and learning needs of students, problems that exist in learning and media development needed during the learning and teaching process (Daryanto, 2010).

The needs analysis stage consists of an analysis of teacher needs and an analysis of student needs. The needs analysis stage was carried out at MAN 2 Deli Serdang with 15 students by distributing questionnaires and also two Economics teachers.

The results of the research needs questionnaire distributed to teachers of economics stated that flipbook-based economics teaching materials had never been used in learning national income material, therefore it was necessary to develop learning media in the form of teaching materials on national income

learning materials in an effort to improve learning that was more effective and interesting.

Whereas the results of the research needs questionnaire which was distributed to 15 students stated that flipbook-based economics teaching materials had never been used in economics subjects, therefore it was necessary to develop learning media in the form of flipbook-based economics teaching materials in an effort to improve learning that was more effective and interesting.

### Initial Product Description

After conducting a needs analysis, it is continued with developing the initial product (national income material). The media program developed as a whole discusses national income material. The target use of this learning media product is students who study national income material. The process of producing learning media uses several design programs such as the Adobe Photoshop CS 6 application, Corel Draw, Microsoft Word 365, and is converted into electronic teaching materials using the flippingbook.com online application.

The use of the application of flipbook-based economics teaching materials aims to create interactive and interesting learning conditions, student motivation, student interest in learning, and to improve learning outcomes in learning national income material. It is hoped that by using this media students will be able to explain national income material.

Material products of national income in outline which contain results namely:

- a. Materials that attract attention in this media are a combination of
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text, images, videos, and animations, to make learning more interesting and interactive.

- b. Cover display on teaching materials based on national income flipbooks.



Figure 1. Cover Flipbook-based teaching materials

(Source: Personal Documentation, 2022)

Glossary display on flipbook-based economics teaching materials.



Figure 2. Glossary Flipbook-based teaching materials

(Source: Personal Documentation, 2022)

Display of material on flipbook-based economics teaching materials



Figure 3. flipbook-based teaching materials

(Source: Personal Documentation, 2022)

Display of material on flipbook-based economics teaching materials.

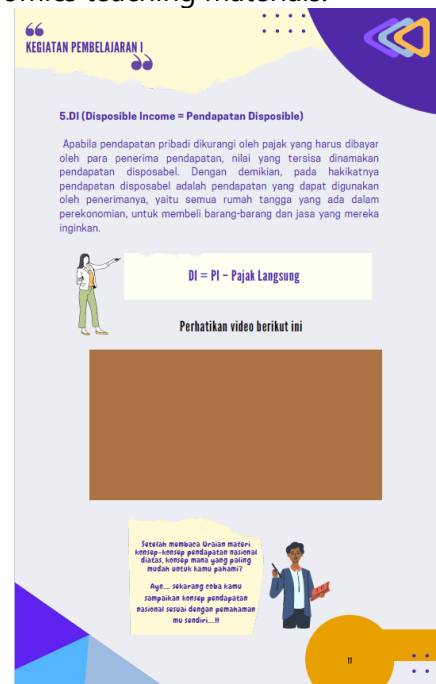
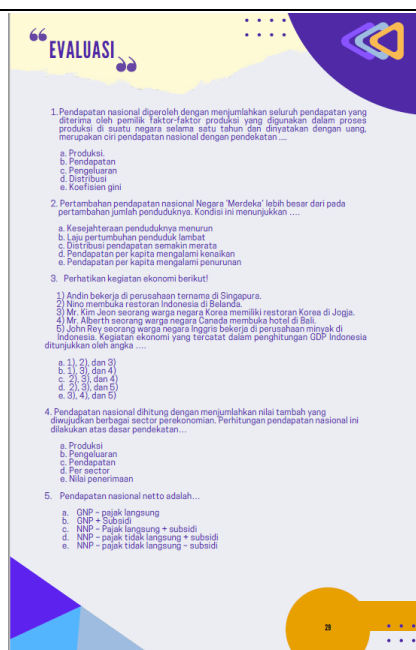


Figure 4. Flipbook based video slide show

(Source: Personal Documentation, 2022)

Display of questions on economics teaching materials flipbook based.



**Figure 5. Questions Flipbook-based teaching materials on national income (Source: Personal Documentation, 2022)**  
Display of flipbook-based economics teaching materials in the application.



**Figure 6. display of flipbook-based teaching materials (Source: Personal Documentation, 2022)**

After the initial product has been developed, it is followed by product review and research by experts. This review and assessment is carried out by validating the product with media experts, material experts, and learning model experts who are experts in their fields. From the assessment of the experts, the final media product was produced, learning media which was then tested on students to find out the effectiveness of flipbook-based teaching materials on national income material.

## Description of Test Result Data

Based on product validation through a series of trials and revisions that have been carried out, the development of flipbook-based economics teaching materials is valid. The tryout was carried out in 6 stages, namely: (1) Media expert validation (2) Material expert validation, (3) Learning model expert validation (4) Small group tryout, (5) Medium group tryout, and (6) Large group tryout /field.

### 1. Data from Phase 1 Trial Results (Validation of Experts)

Product validation aims to find out the opinions of material experts, learning media experts and learning model experts regarding the accuracy of the design, learning aspects, the correctness of the content, and the presentation of the learning design. The following below is data validation results by experts:

#### 1) Material Expert Validation Result Data

Material expert validation of the development of flipbook-based economics teaching materials learning media was carried out by two material experts, namely expert lecturers in economics education at Medan State University. As well as teachers in the field of study. The assessment is carried out with the aim of obtaining information that is used to increase the feasibility of developing flipbook-based economics teaching materials for students. The result of the validation is in the form of an assessment score on the components of flipbook-based teaching materials on national income in all aspects.

Based on the observations of the results of the material expert validation in table 2 above, it can be seen that the feasibility of the contents of the learning



material has 5 indicator items rated "Very Good" and 1 indicator item rated "Good". In observing the results of the material expert validation above, it can be seen that the presentation of learning material contains 6 indicator items rated "Very Good". and observing the results of the material expert validation above can be seen that the graphical aspects of the learning material for all indicator items are rated "Very Good". Overall the review aspect of material experts is 92.94% in the "Very Good" category.

## 2) Media Expert Validation Data

The validation of learning media experts was carried out by media experts, postgraduate lecturers at Medan State University. Learning media experts validate products on media aspects, program appearance aspects, technical quality aspects and program effectiveness

Based on the observations of the media expert validation results in table 3.

above, it can be seen that the media aspect of all indicator items is rated "Very Good", then in the observation of the media expert validation results on the appearance aspect of the program it is known that 4 indicator items are rated "Very Good" and 1 indicator item is rated with well, from the observation of the validation results of media experts that the quality aspect.

Technically and the effectiveness of the program, there are 6 indicator items rated "Very Good" and 2 indicator items rated as good.

Thus the assessment carried out by media experts included aspects of media aspects, program appearance aspects, technical quality aspects and program effectiveness in the development of flipbook-based learning media on national income material which was assessed at 95.56% with very good criteria. The overall results of the assessment are summarized in table 2.

**Table 2. Level of trend Rating of media experts**

No	Categori	Score Range	Frekuensi	Presentase (%)
1.	Very good	$81\% \leq \text{skor} \leq 100\%$	14	77,78
2.	Good	$61\% \leq \text{skor} \leq 80\%$	4	22,22
3.	Currently	$41\% \leq \text{skor} \leq 60\%$	0	0,00
4.	Not good	$21\% \leq \text{skor} \leq 40\%$	0	0,00
5.	Very Less Good	$0\% \leq \text{skor} \leq 20\%$	0	0,00

Based on the observations of the material expert results in table 2, it can be seen that from the media aspect the "Very Good" trend rate is rated at 77.78% and the "good" trend is rated at 22.22%.

Based on the table above, the overall results can be considered very good and the comments of the media expert validator regarding media aspects, Program Display Aspects, and Technical Quality Aspects and Program Effectiveness in general are very good, but in order to achieve perfection there are several suggestions.

1) Data from Expert Validation of Learning model

The validation of the learning model expert was carried out by the learning model expert, a postgraduate lecturer at Medan State University. The learning model expert validates the product on the learning design aspect. And aspects of the characteristics of flipbook-based teaching materials.

The results of the validation in the form of a score on the component of developing flipbook-based teaching materials on national income material can be seen in Table 3.

**Table 3. Assessment scores by learning model experts**

<b>ASPECT OF LEARNING DESIGN</b>				
<b>No.</b>	<b>Statement</b>	<b>Respondent</b>	<b>Total score</b>	<b>(%)</b>
1	Relevance of learning objectives with KI/KD/Curriculum	5	5	100%
2	Accuracy in making indicators from Basic Competency (KD) references	5	5	100%
3	Scope and depth of learning objectives	5	5	100%
4	Accuracy of taking learning methods	5	5	100%
5	Visible aspects of the 5M scientific approach that have been continued with the problem solving method:	5	5	100%
6	a. Observe (Problem identification)	5	5	100%
7	b. Ask (Problem identification)	5	5	100%
8	c. Gathering information (Searching for information)	5	5	100%
9	d. Associating (Creating a Hypothesis)	5	5	100%

10	e. Communicating hypotheses and conclusions)	(Proposing and making	5	5	100%
11	Accuracy of learning methods with indicators		5	5	100%
12	Systematic consistency of method		5	5	100%
13	Apperception accuracy of learning fosters a sense of curiosity		5	5	100%
14	Providing motivation to learn in apperception		4	4	80%
15	The depth of the material according to KD		5	5	100%
16	The depth of the material corresponds to the cognitive development of the formal operational stage		4	4	80%
17	Material contextuality		5	5	100%
18	Ease of material to understand		5	5	100%
19	The accuracy of the use of presentation strategy		5	5	100%
20	Systematic consistency of material description		4	4	80%
21	Conformity between the material and the sample questions		5	5	100%
22	Appropriateness of evaluation with learning objectives		5	5	100%
23	Accuracy evaluation tool		5	5	100%
24	Providing feedback on the results of the evaluation		5	5	100%
25	Learning interactivity		5	5	100%
26	Completeness of study aid materials (audio, images, animation and video)		4	4	80%
27	Contextuality and actuality of media in learning		5	5	100%
<b>ASPECT OF CHARACTERISTICS OF TEACHING MATERIALS</b>					
28	Flipbook-based teaching material framework:		4	4	80%
29	a. The description of the table of contents is enabled by displaying blocks located at the edge of the layout		4	4	80%
30	c. Description of student use instructions		4	4	80%
31	d. Description of the prerequisites for study participation		5	5	100%

32	e. Description of KI, KD and Indicators	5	5	100%
33	f. Description of learning activity units	5	5	100%
34	g. Goal description	5	5	100%
35	h. Material description	4	4	80%
36	i. Summary description	5	5	100%
37	j. Assignment	5	5	100%
38	k. Submaterial exercises	5	5	100%
39	l. Overall evaluation	5	5	100%
40	m. Answer Key exercises and evaluations	4	4	80%
41	n. Task answer key	5	5	100%
42	o. Guidelines for scoring exercises and evaluation (grade)	5	5	100%
43	p. Assignment scoring guidelines	4	4	80%
44	q. Bibliography	5	5	100%
45	Self instruction (the accuracy of the structure of flipbook-based teaching materials so that there is potential for students to learn independently)	4	4	80%
46	Self contained (consisting of units that achieve the integrity of the basic competencies)	5	5	100%
47	Stand alone, (modules developed do not depend on other media)	4	4	80%
48	Adaptive, module adaptation to the development of science and technology	5	5	100%
49	<i>User friendly</i> , easy to access and use	5	5	100%
	Average	233	233	<b>95%</b>

Based on the observations of the learning model expert validation results in table 3 above, it can be seen that in the learning design aspect there are 23 indicator items rated "Very Good" and 4 indicators considered good, then in the characteristics aspect of flipbook-based teaching materials there are 14 indicator items rated "Very Good" and 8 indicators are considered good. Assessments carried out by learning model experts include aspects of learning design and aspects of the characteristics of flipbook-based teaching materials in the development of flipbook-based learning media on national income material. The overall results of the

assessment are summarized in table 4.

**Table 4. Level of tendency Assessment of learning model experts on aspects of learning design**

No	Categori	Score Range	Frekuensi	Presentase (%)
1.	Very good	81% ≤ skor ≤ 100%	37	75,51
2.	Good	61% ≤ skor ≤ 80%	12	24,49
3.	Currently	41% ≤ skor ≤ 60%	0	0,00
4.	Not good	21% ≤ skor ≤ 40%	0	0,00
5.	Very Less Good	0% ≤ skor ≤ 20%	0	0,00

Based on the observations of the results of the learning model experts in table 4, it can be seen that from the

learning design aspect the tendency level of "Very Good" is assessed at 75.51%

**Table 5. Comments and Suggestions From Experts Learning models that Need to be Revised**

No	Topic	Coment	Suggestion
1.	Learning Design Aspects	Already well	
2.	Aspect Characteristics of e-module	<ul style="list-style-type: none"> <li>The text is rather small</li> <li>Customize with the syllabus</li> </ul>	Enlarge the text

## 2. Data on Phase II Trial Results

### 1) Small Group Trial

Small group trials were conducted at the MAN 2 Deliserdang school. Small group trials were conducted on 5 randomly selected students. The purpose of this trial is to identify learning product

deficiencies after being reviewed by experts.

The results of the trial in the form of an assessment score on the development of learning media products based on national income flipbooks in small group trials can be seen in Table 6.

**Table 6. Small Group Trial Media Rating Score on the feasibility aspect content (Scale 1-5)**

NO	Statement	RESPONDEN					TOTAL SCORE	(%)	Criteria
		1	2	3	4	5			
Content Eligibility Aspects									
1	Clarity of learning objectives	5	4	5	4	5	23	92	Very good
2	Material coverage accuracy	5	5	3	5	4	22	88	Very good
3	Concept truth	5	5	4	4	5	23	92	Very good
4	Depth of learning material	5	4	5	4	4	22	88	Very good
5	Compatibility with the curriculum	4	4	5	5	3	21	84	Very good

6	The accuracy of the order of learning materials	4	5	5	5	5	24	96	Very good
<b>Presentation Aspects</b>									
7	Preliminary quality	5	5	5	5	4	24	96	Very good
8	Quality of presentation of the material	5	4	5	5	4	23	92	Very good
9	The involvement and role of students in learning activities	5	3	4	5	5	22	88	Very good
10	Quality feedback	5	4	4	5	4	22	88	Very good
11	Serving time	5	4	5	5	5	24	96	Very good
12	Quality of practice questions	5	4	4	5	4	22	88	Very good
<b>Linguistic Aspect</b>									
13	Digestible material and logical presentation	5	5	5	5	4	24	96	Very good
14	Language Use	4	5	5	4	4	22	88	Very good
15	Ease of understanding language	5	3	4	5	5	22	88	Very good
<b>Graphic Aspects</b>									
16	Display quality	5	5	5	4	4	23	92	Very good
17	Illustrations and animations	4	5	4	5	5	23	92	Very good
Average								90,82	Very good

Based on the observation of the results of the small group try out validation in table 6. above, it can be seen that the feasibility aspect of the contents of all indicator items is rated "Very Good". For observation of the results of the small group trials on the linguistic aspects of the overall item indicators it was rated "Very Good" and the results of the validation according to the small group trials on teaching materials based on national income flipbooks on the graphical aspect found that the graphical

aspects of all indicator items were rated "Very Good" with Thus the overall aspect of the media is rated 90.82% in the "Very Good" category.

Assessments carried out by small groups include aspects of content feasibility, presentation feasibility, language feasibility and graphic feasibility in the development of flipbook-based learning media on national income material. The overall results of the assessment are summarized in table 7.

**Table 7. Level of trend Assessment of small group trials for all aspects**

No	Categori	Score Range	Frekuensi	Presentase (%)
1.	Very good	81% ≤ skor ≤ 100%	17	100
2.	Good	61% ≤ skor ≤ 80%	0	0,00
3.	Currently	41% ≤ skor ≤ 60%	0	0,00
4.	Not good	21% ≤ skor ≤ 40%	0	0,00
5.	Very Less Good	0% ≤ skor ≤ 20%	0	0,00

Table 7. shows the results of the assessment of responses carried out in small

group trials on the development of national income flipbook-based learning media, all students rated "Very Good" at 100%.

Based on observations of the validation results of the Medium group tryout in table 7 above, it can be seen that the feasibility aspect of the contents of all indicator items is rated "Very Good" thus Overall the media aspect is rated 91.56% by

category.

"Very good". Furthermore, the results of the validation according to the medium group trial regarding teaching materials based on national income flipbooks on the linguistic and graphical aspects of all indicator items were rated "Very Good" thus Overall the aspect was rated 91.67% in the "Very Good" category.

**Table 8. Level of trend Assessment of the moderate group trial on all aspects**

No	Categori	Score Range	Frekuensi	Presentase (%)
1.	Very good	$81\% \leq \text{skor} \leq 100\%$	17	100
2.	good	$61\% \leq \text{skor} \leq 80\%$	0	0,00
3.	Currently	$41\% \leq \text{skor} \leq 60\%$	0	0,00
4.	Not good	$21\% \leq \text{skor} \leq 40\%$	0	0,00
5.	Very Less Good	$0\% \leq \text{skor} \leq 20\%$	0	0,00

Table 8. shows the results of the assessment of the responses carried out in the medium group trial towards the development of national income flipbook-based learning media, all students rated "Very Good" at 100%, Media Feasibility Validation Results by Experts.

The assessment of experts, namely material experts, media experts, and learning model experts on the development of national income flipbook-based teaching materials learning media which was also

tested on students, contained several notes or improvements for revision. After implementing product revisions based on expert instructions and advice, an expert assessment of interactive media based on guiding students during the learning process was carried out at the same time using teaching materials based on the developed national income flipbook. The average percentage of the results of the expert assessment after the implementation of the revision can be presented in Table 9.

**Table 9. Average Percentage of Feasibility Assessment Results of teaching materials based on national income flipbooks by experts**

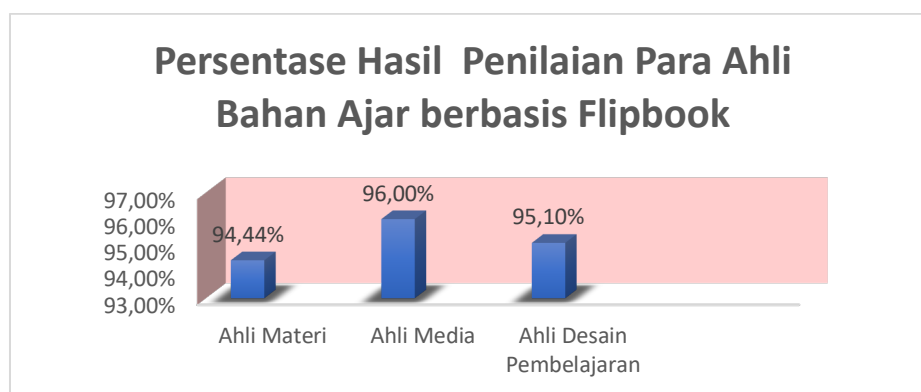
No	Assessment Aspects	Persentase	Criteria
1.	Learning materials	94,44%	Very good
2.	Learning Media	96,00%	Very good
3.	Learning model	95,10%	Very good
Average		<b>95,18%</b>	<b>Very good</b>

Based on Table 9. above, it can be seen that the evaluation of media feasibility of flipbook-based teaching materials on national income material after revision based on expert guidance can be seen that the average assessment of subject matter aspects is 94.44% with a very good category, the average aspect assessment learning media by 96.00% with very good category, and the average aspect of learning model assessment is 95.10% with very good category. All aspects of the assessment with an average of 95.18% with a very good category.

Thus it can be concluded that the product of economics flipbook-based

teaching materials on national income material that was developed belongs to the very feasible category overall. The results of this validation also prove that economic flipbook-based teaching materials on national income material can meet the needs of implementing national income learning and are very worthy of being tested according to the judgment of experts.

Based on the acquisition of an average expert assessment score on economic flipbook-based teaching material media on national income material that has been developed, a diagram of the average percentage of expert judgment can be presented in Figure 7.



**Figure 7. Bar chart of expert assessment of teaching materials based on national income flipbooks**

#### Analysis of Small Group Trial Results

The results of the analysis and small group trials on each aspect of the assessment as a whole are determined by the average score of each category. This small group trial was conducted on 5

students at MAN 2 Deli Serdang. The results of the assessment are then analyzed to be able to determine the deficiencies of the product being developed. The average percentage of small group trial results can be seen in Table 10.

**Table 10. Average Percentage of Feasibility Assessment Results of national income flipbook-based teaching materials from small group trials**

No	Assessment Aspects	Persentase	Criteria
1.	Content Eligibility	90,00%	Very good
2.	Presentation	91,33%	Very good
3.	language	90,67%	Very good
4.	graphics	92,00%	Very good



Average	<b>91,00%</b>	<b>Very good</b>
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Based on Table 10. above, it can be seen that the feasibility assessment of economic flipbook-based learning media on national income material from small group trials on the content feasibility aspect averaged 90.00%, on the presentation aspect an average of 91.33%, language aspects with an average of 90.67% and graphical aspects with an average of 92.00%. Thus it can be concluded that the results of the interactive media assessment in the small group trial are included in the "Very Good" category.

The results of this study also prove that economics flipbook-based teaching materials on national income material can meet the needs of implementing national income learning.

Based on the acquisition of the average rating score in the small group trial of the

economic flipbook-based teaching material on national income material that has been developed, a diagram of the average percentage of small group trial assessments can be presented in Figure 7.

#### **Analysis of the Results of the Medium Group Trial**

The results of the analysis and trials of the moderate group on each aspect of the overall assessment are determined by the average score of each category. This medium group trial was conducted on 15 students at SMK MAN 2 Deli Serdang.

The results of the assessment are then analyzed to be able to determine the deficiencies of the product being developed. The average percentage of small group trial results can be seen in Table 11.

**Table 11. Average Percentage of Feasibility Assessment Results of national income flipbook-based teaching materials from medium group trials**

No	Assessment Aspects	Persentase	Criteria
1.	Content Eligibility	90,67%	Very good
2.	Presentation	91,56%	Very good
3.	language	92,44%	Very good
4.	graphics	92%	Very good
	Average	91,67%	Very good

Based on Table 11. above, it can be seen that the feasibility assessment of economic flipbook-based learning media on national income material from the medium group trial on the content feasibility aspect averaged 90.67%, on the presentation aspect an average of 91.56%, language aspects with an average of 92.44% and graphical aspects with an average of 92.00%.

Thus it can be concluded that the results of the interactive media assessment in the medium group trial are included in the "Very Good" category

The results of this study also prove that economics flipbook-based teaching materials on national income material can meet the needs of implementing national income learning.

### Analysis of Field Trial Results

The results of analysis and field trials on each aspect of the overall assessment are determined by the average score of each category. This field trial was conducted on 30 students at MAN 2 Deli Serdang. The results of the assessment are then analyzed to be able to determine the deficiencies of the product being developed.

### Descriptive Research Data

Based on the data obtained from the research results with a total sample of 60 students, the average and standard deviation of learning outcomes for national income subjects in the control class and experimental class students are obtained as shown in Tables 12. and 13.

**Table 12. descriptive research data on the results of learning economics subjects on national income**

Control Class		Experiment Class	
Posttest		Posttest	
Average	SD	Average	SD
67,69	7,95	85,4	3,61

From the data in Table 12, it can be seen that in the control class that has carried out the Posttest, the average student score is 67.69 with a standard deviation of 7.95. Meanwhile, in the Posttest experimental class, the average

student score was 85.4 with a standard deviation of 3.61.

Based on table 13. it can be seen the difference between the control class and the experimental class. Good for study results.

**Table 13. The difference between the average score of national income**

Information	Average Score
	National Income Knowledge
Control Class	67,69
Experiment Class	85,4
Score Difference	17,71

From the table above it can be seen an increase in sample knowledge about national income. The table above can be seen an increase in sample knowledge about national income with a difference of 17.71%. For more details, the description of the score data on learning outcomes in the experimental class and control class will be described in the following research results.

### CONCLUSIONS

After carrying out the process or stages of developing flipbook-based economics teaching materials, the following conclusions can be put forward: Flipbook-based economics teaching materials developed on national income material at MAN 2 Deli Serdang are suitable for use. Flipbook-based economics teaching materials that are used on national income material at MAN 2 Deli Serdang are effectively used.

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