

## THE DEVELOPMENT OF E-MODULES OF PANCASILA EDUCATION LEARNING WITH THE FLIPBOOK APPLICATION

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### Abstract

The paper aims to develop an e-module for learning Pancasila education using the flipbook application at SMP Negeri 6 Bukittinggi that is valid, practical, and effective. This type of research is development research with a 4D development model design, namely define, design, develop, and disseminate. The population in this research is class VII of SMP Negeri 6 Bukittinggi, and the sample is 30 students. The instruments used in this development are validation sheets, e-module practicality test sheets, and effectiveness sheets, while the data collection techniques used in this e-module development research use three types of data collection techniques, namely through interviews, questionnaires, and tests. This research uses two types of data, namely quantitative and qualitative. Quantitative data is data in the form of material, media, and language expert validation sheets. The data and data sources used in this research are primary and secondary data sources. Primary data was obtained directly from the source, namely by observing the implementation of learning and conducting interviews with teachers and students. Secondary data used are written sources, such as books, documents, and journals related to research. The data analysis technique in this research is testing the validity, practicality, and effectiveness obtained through the instruments that have been developed. The results of validation by media experts obtained an average score of 83%, material experts obtained an average score of 92%, and language experts obtained an average score of 98%. For practical results by teachers, the average was 92%, while for the effectiveness of teaching materials, it was 3.77. From the results of this research, it can be concluded that the use of the Pancasila education learning e-module with the flipbook application is suitable for use in the learning process.

### Keywords

E-Module, Flipbook, Pancasila Education, SMP Negeri 6 Bukittinggi,



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## INTRODUCTION

PPKn lessons are mandatory subjects from elementary school to university in Indonesia. PPKn itself is a field of study that explores everyday life and aims to instill the values of being a model citizen who upholds the principles of Pancasila, the basic ideology of the Indonesian state (Antari, 2020; Belia, 2023). The problem is that there are more students who have not implemented the values of Pancasila within themselves. It can be seen that there are still many behaviors that do not reflect the values of Pancasila. Students are still involved in brawls, fights, and even criminal acts. There are many things that trigger this problem. One of the reasons is that the 2020 revised 2013 curriculum, which is now widely used in various educational institutions in Indonesia, has not been effective in its implementation, so it does not meet learning outcomes, especially in Civics subjects.

The solution provided by the Government is to implement an independent curriculum in Civics subjects starting in the 2022/2023 academic year. This curriculum is expected to bring changes in performance in Civics learning. This is because the implementation of PPKn with an independent curriculum conceptually facilitates a fun and relevant learning process (Suwanti, 2022; Winataputra, 2016). Current Civics practice takes place with a conventional approach. Teachers mostly use the lecture method, question, and answer method, and in class, only as listeners. Learning becomes monotonous, and the teacher is the only source. Apart from that, supporting media is also rarely used in Civics learning, so teachers must be creative in cultivating students' conscious minds to improve student achievement (Muhajir & Sugiarti, 2019).

Based on this belief, the teaching methods used by teachers can be varied, not only through lectures. Several types of learning approaches can be utilized in the teaching and learning process, for example, through discussions, debates, brainstorming, demonstrations, simulations, role plays, assignments, case studies, and portfolios (Hotimah, 2018). However, there is no model for the best learning approach. The best approach is the one that best suits the needs, circumstances, and conditions of students (Rumahorbo et al., 2021). Learning materials are all systematic collections of material, written or not, in a way that creates an atmosphere that allows students to learn (Khulsum, 2018; Trinianti et al., 2021).

The use of module-type teaching materials is a smart solution in an effort to create an interesting teaching and learning process for students to achieve the expected competencies. According to Mulyasa (2017), the module is an independent learning module consisting of a series of systematically planned learning experiences designed for students to achieve their learning goals.

Besides that, Runtu (2019) reveals that The advantage of using modules is that the language is made as simple as possible according to the student's level of thinking and has stand-alone characteristics where the model is developed without depending on other media. As technology develops, according to Mardiana & Harti (2022), Technology has brought many innovations to the world of education, supporting interactive teaching and learning activities through the curriculum. Teachers should be able to develop teaching materials in the form of printed modules, which are currently widely used in interactive multimedia modules that combine pedagogic capabilities with technology known as TPACK. The aim is to stimulate students' thinking and grow high-quality students. Thus, a combination of educational materials and technology can be applied effectively in PPKn teaching and learning activities, and one alternative is the use of electronic modules. Electronic module strongly recommends the use of electronic modules to increase student activity in learning and student independence (Marizal & Asri, 2022). According to Asmi et al. (2018), E-modules or electronics modules are one model of technological development that can improve the quality of the learning process. By using e-modules in learning, it is hoped that it can reduce student learning boredom with modules.

Bukittinggi 6 State Junior High School (SMP) is one of the large schools in Bukittinggi City, West Sumatra Province. At SMP Negeri 6 Bukittinggi there are 19 groups. Class VII (Seven) has nine groups, class VIII (eight) has five groups, and class IX (Nine) has five groups. Class VII (seven) for the 2022/2023 academic year is currently implementing the Independent Curriculum. The curriculum provides Pancasila education lessons in line with PPKn learning. The learning results of class VII (Seven) Pancasila education in the Odd Semester Middle Summative for the 2022 – 2023 academic year show that the learning outcomes of a total of 261 class VII (Seven) students in the Odd Semester Midsummative for the 2022 – 2023 academic year in the subject of Pancasila Education are only 30 or 11.49% who achieved a learning outcome score of 80 and above. The majority of students, namely 88.50%, achieved a score below 80. SMP Negeri 6 Bukittinggi is one of the educational units that sets criteria for achieving learning objectives (KKTP) using value intervals for grades derived from written test scores. Students are said to have achieved the learning objectives, and as an intervention, there is no need to make remedial if they reach a score of  $\geq 80$ . This condition proves that students in class VII (Seven) of Bukittinggi 6 State Junior High School (SMP) are still experiencing learning difficulties in terms of Pancasila Education. This situation of learning difficulties is reinforced by the results of a preliminary study using a questionnaire regarding the

reasons for difficulties in learning Pancasila Education in the material "History of the Birth of Pancasila" from 7 November to 12 November 2022 on 261 Class VII students. It shows that of the 261 Class VII students, there are 211 participants. Students (80.8%) found it difficult to learn and understand Pancasila Education lessons on the History of the Birth of Pancasila material; 171 students (65.4%) stated that the students' printed books were designed too complicated; 190 students (73.1%) stated that teachers taught using the lecture method because they did not understand technology, and only relied on practicing questions from LKPD, not in combination with other media; 160 students (61.5%) stated that the books students used were less interesting (monotonous) so they lacked enthusiasm for learning; However, 30 students (11.5%) stated that they did not have a cellular device and still used their parents' device.

The survey results are supported by the results of an initial interview with the teacher who teaches Civics at SMP Negeri 6 Bukittinggi, namely Mrs. Linda Tes Herawati, S.Pd regarding teaching materials stating that there is very little material in student textbooks, the teaching materials used are printed teaching materials in the form of student books and other supporting books from the Erlangga publisher. The difficulties faced with current teaching materials and printed teaching materials/books are that the material content is very small, there are many terms used that are difficult for students to understand, and the appearance is also stiff so that less than 75% of students are unable to achieve a completeness score. Then, based on the analysis, the teaching materials used by the teacher did not meet all the Civics learning materials specifically for Pancasila Education learning materials.

Based on the empirical phenomenon above, the current situation is that the teaching materials used by PPKn teachers at SMP Negeri 6 Bukittinggi are in the form of printed teacher's manuals, which still seem descriptive and have not been produced into one large package of teaching materials, thus allowing students to search for teaching materials from other sources. In addition, due to limited study time, teaching materials cannot be fully taught by the teacher. Responding to this situation requires other supporting teaching materials, such as the development of electronic modules (e-modules) for PPKn learning, which are expected to support student learning in current conditions.

Based on the explanation above, the author chose to answer this problem by creating teaching materials in the form of e-modules with a professional PDF flipbook application for students to independently use when studying Pancasila Education at SMP Negeri 6 Bukittinggi. The

main reason for developing e-modules with a professional PDF flipbook application is that it can be used even if it is not connected to an internet network but still has many templates to choose from, is rich in features, graphic designs can be downloaded and shared in various formats such as Flash/HTML, ZIP, EXE, Email, FTP Server, Mac App, and can be burned to CD/DVD.

There have been several previous studies that discussed the development of flipbook-based electronic modules as teaching materials in Pancasila education, including the study conducted by Sari & Ariswan (2021). It aims to produce an integrated physics learning e-module with Pancasila character values in business and energy subjects that is suitable for use. The research results show that the integrated physics learning e-module with Pancasila character values in business and energy subjects is suitable for use in the "Very Good" category based on the assessment of material experts, media experts, physics teachers, peer reviewers, and students. Response. Based on these findings, teachers can use this e-module as a reference source for student learning in the learning process both inside and outside the classroom because the e-module has been tested for its suitability. Komikesari (2020) stated that conducting research and development is intended to determine the feasibility and responses of students and educators to the development of e-modules using Flip PDF professional on temperature and heat material. The e-module validation product using professional flip pdf learning media has met the very good criteria with a percentage assessment by material experts of 92.08%, media experts of 89.1%, and religious experts of 90%. Meanwhile, student and educator responses obtained very good criteria with a percentage of small group trials of 88.15%, field trials of 88.03%, and teacher response tests of 85.96%. Based on the results of e-module development using Flip PDF Professional, it can be used as a learning medium.

In addition, the study by Anandari et al. (2019) aims to conduct research on the development of electronic modules using the Kvisoft flipbook application based on ethno-constructivism to increase student learning motivation. Based on the results of research and development, a figure of 85.6% was obtained in the "Good" category regarding student motivation in using electronic modules in the learning process. The exploration by Ameriza & Jalinus (2021) aims to develop an e-module based on the Flipbook Maker application in the Pancasila Education course. The research results show that the Flipbook Maker-based e-module on Character Education material for learning the Pancasila subject is effective for strengthening student character and is also effective in improving learning outcomes. Ultimately, the work by Seruni et al. (2019) developed a professional flip PDF e-module to improve students' critical thinking skills through problem-based learning. The

validation test results from the expert review obtained an average score of 3.85 out of a maximum score of 4, which indicates that the e-module is in the Feasible category. The media expert's assessment received an average score of 4.0 out of a maximum score of 5, which means the e-module is in the appropriate media aspect category. The e-module got an average score of 3.64 from the highest score of 4, which means the e-module developed is included in the very feasible category according to students. The research results show that the use of the lipid metabolism e-module through problem-based learning is effective in improving the critical thinking abilities of chemistry education students.

The update in this research is on Pancasila education learning, which is developed only on the material on the history of the birth of Pancasila. The development of e-modules for learning Pancasila Education is specifically used for students in class VII (Seven) of SMP Negeri 6 Bukittinggi. For this reason, the aim of this research is to develop an e-module for learning Pancasila Education using the flipbook application and test the effectiveness of the e-module for learning Pancasila Education using the flipbook application at SMP Negeri 6 Bukittinggi.

## **METHOD**

Based on the research objectives, this type of research is development research. In other words, Research and Development (RnD). In contrast to other types of research, development research focuses more on creating new products and testing the effectiveness of these products so that they can be accounted for and are useful for society (Sugiyono, 2022). This 4D model design is very effective as a basis for developing teaching materials because the steps at each stage are complete and more systematic. Apart from that, the development stage involves expert assessment so that the teaching materials that will be tested on trial subjects have passed the revision stage based on suggestions, input, and expert assessment (Triyanto, 2010). Thiagarajan's (1974) 4D or four D model design was the choice of development model used as the e-module development flow with the flipbook application in this research, with four stages, namely define, design, develop, and disseminate. Considering the limited time, circumstances, and costs that researchers have, this research was carried out until the development stage.

Research instruments are all tools used to collect, examine, investigate a problem or collect process, analyze, and present data in an orderly and objective manner with the aim of solving a problem or testing a hypothesis (Punaji, 2010). The instruments used in this development are

validation sheets, e-module practicality testing sheets, and effectiveness sheets.

The location of this research was at SMP Negeri 6 Bukittinggi. Meanwhile, the data and data sources used in this research are primary and secondary data sources. Primary data was obtained directly from the source, namely by observing the implementation of learning and conducting interviews with teachers and students. Secondary data used are written sources, such as books, documents, and journals related to research. The data analysis technique in this research is testing the validity, practicality, and effectiveness obtained through the instruments that have been developed.

The data collection technique used in this e-module development research uses three types of data collection techniques, namely through interviews, questionnaires, and tests. Interviews were conducted. These interviews were conducted with three students who had different academic abilities. One student with high ability, one person with medium ability, and one person with low ability. Interviews were also conducted with one principal of SMP N 6 Bukittinggi, 1 PPKn teacher of SMP N 6 Bukittinggi, 1 PPKn teacher of SMP N 7 Bukittinggi, one head of the MGMP PPKn SMP Bukittinggi City. The aspects that will be included on the interview sheet are attractiveness, ease of use, ease of understanding, and time efficiency. This teacher response practicality questionnaire contains several assessment aspects consisting of attractiveness, development process, ease of use, functionality and usefulness, and economic value. This questionnaire was given to 1 principal of SMPN 6 Bukittinggi, 1 PPKn teacher of SMP N 6 Bukittinggi, 1 PPKn teacher of SMP N 7 Bukittinggi, one head of MGMP PPKn SMP Bukittinggi City. Meanwhile, a student response questionnaire was used to obtain student responses regarding the practicality of the device. Developed e-module. This instrument is filled in by students after following the learning process. The student response questionnaire was filled out by eight people for a small-scale trial by grade 7 students at SMPN Bukittinggi for a large-scale trial.

The data analysis techniques in this research are validity, practicality, and effectiveness obtained through the instruments stated above, explained as follows:

### **Validity Analysis**

The validation results for all aspects observed are presented in table form, and then the average score is found using the formula:

Formula for Processing Data as A Whole Item,

$$P = \frac{\sum x}{\sum xi} \times 100$$

Description:

P = Percentage (%)

$\sum x$  = Total score of answers for all instruments

$\sum xi$  = Maximum total score from all instruments

Maximum total score from all instruments

**Table 1.** Validation Criteria for E-module Instruments and Teaching Media

(%)	Category
<55	Very Invalid
56-65	Invalid
66-79	valid
80-100	Very Valid

### Practicality Analysis

Practicality data was collected through filling out questionnaires and interviews with students and teachers, as well as observing the implementation of the learning process. The instruments used were questionnaires and interview guide sheets. Data from the results of filling out questionnaires by students is analyzed first and given a scoring of the answer choices provided for each question item. Practicality assessments are analyzed and interpreted according to the following criteria:

**Table 2.** E-module Practicality Categories

(%)	Category
<55	Very Invalid
56-65	Invalid
66-79	Practical
80-100	Very Practical

### Effectiveness of Analysis

Data regarding the effectiveness of learning tools can be obtained from the analysis of several data collection instruments for analyzing student learning outcomes. The tests carried out are in the form of practice questions. This test focuses on students' cognitive abilities in learning. The results of the ability test are assessed based on scoring guidelines. The results of the ability test are calculated using the following ideal value formula:

$$N = \frac{S}{I} \times 100$$

Description:

*N*: Students' scores

*S*: Total Scores

*I*: Ideal Scores

After obtaining the percentage using this formula, the feasibility of e-modules on learning outcomes can be classified into five eligibility categories based on the following criteria:

**Table 3.** Criteria for Success in Learning Outcomes Tests

Achievement Level (%)	Qualification	Level of completeness
81-100	Very Effective	Very worthy
61-80	Effective	Worthy
41-60	Less Effective	Less worthy
21-40	Ineffective	Not worthy
<20	Very Ineffective	Very unworthy

## FINDINGS AND DISCUSSION

### Findings

#### Stage I Definition

The initial stage, namely definition, aims to determine and define learning conditions that are in accordance with the research objectives, namely developing e-modules with the Flipbook application. In stage I, there are five steps taken, namely:

#### Front End Analysis

Front-end analysis is to determine the basic problems faced in learning so that an e-module development with the Flipbook application is needed. This analysis is useful for getting an overview of the facts and alternative solutions to basic problems that can facilitate e-module development. The results of observations on student learning resources used in the learning process at SMP Negeri 6 Bukittinggi show that teachers only rely on material in students' books without developing it further.

The results of the preliminary study through interviews with students showed that out of 261 grade 7 students, 211 students (80.8%) found it difficult to learn and understand Pancasila Education lessons on the History of the Birth of Pancasila material; 171 students (65.4%) stated that the students' printed books were designed too complicated; 190 students (73.1%) stated that teachers

taught using the lecture method, and only relied on practice questions from LKPD, not in combination with other media; 160 students (61.5%) stated that the books students used were less interesting (monotonous) so they lacked enthusiasm for learning; However, 30 students (11.5%) stated that they did not have a cellular device and still used their parents' device. The results of the preliminary study can be seen in Appendix 3.

The results of initial interviews with teachers showed that of the 35 teaching teachers, 30 teachers taught using conventional media, and only five teachers used modular media. Of the five teachers, there are 2 Pancasila Education teachers, and one of them has used e-modules but from the Canva application. However, the Canva application has shortcomings or weaknesses when applied in e-modules, including it can only be accessed online, some of these new features can only be accessed with a paid membership, it requires a consistent internet connection, video designs take a long time to download, and there is no Insert Table feature to create presentation slides

### **Learner Analysis**

Survey of student learning outcomes in the summative mid-term odd semester of TP. 2022/2023 shows that grade 7 students at Bukittinggi 6 State Junior High School (SMP) are still experiencing learning difficulties in terms of Pancasila Education. The majority of students, namely 88.5%, achieved a score below 80. The survey results showed that out of 261 students, 231 students (88.5%) found it difficult to learn and understand Pancasila Education lessons on the History of the Birth of Pancasila material. Students can be said to be successful in learning if they achieve the learning objectives. They have a score of at least 80.

### **Concept analysis**

The aim of concept analysis is to identify the main concepts in e-modules in grade 7 (seven) of junior high school and organize the concepts systematically. What is done in identifying concepts is the analysis of Elements, CP, TP, and teaching materials, which aims to determine the number and type of e-modules analysis of learning resources, namely collecting and identifying sources that support the preparation of e-modules.

At this stage, the results of the analysis of Elements, CP, TP, and teaching materials referring to the Independent Curriculum were obtained. The curriculum provides Pancasila education lessons in line with PPKn learning. The analysis carried out was a questionnaire analyzing student characteristics in preliminary research, curriculum analysis instruments, self-evaluation of textbooks, self-evaluation of teaching modules, expert review of e-modules, expert review of

teaching modules, implementation sheets of teaching modules, teacher response sheets regarding the practicality of e-modules, student response sheet regarding the practicality of e-modules, interview guide with teachers regarding the practicality of e-modules, interview guide with students regarding the practicality of e-modules. The results of this analysis obtained the E-module concept with the Flipbook Application in Class 7 Pancasila Education Learning.

### **Task analysis**

Task analysis is a set of procedures for determining the content in a learning unit, such as studying student activities that support the implementation of the learning process and studying teacher activities in the form of an examination of the teacher's role during the learning process. The results of the task analysis can be seen in the attachment.

### **Formulation of goals**

The formulation of the learning objective is to summarize the results of concept analysis and task analysis, the aim of which is to determine the behavior of the research object. This collection of objects becomes the basis for compiling tests and designing e-modules. The results of the formulation of learning objectives can be seen in the attachment.

### **Phase II Design (Design)**

The design stage aims to design the product. At this stage, test standards are prepared, media is selected according to the characteristics of the material and learning objectives, the format of the teaching materials to be developed is selected, and an initial design is made according to the selected format. The steps are as follows:

#### **Preparation of test standards (constructing criterion-referenced test)**

Preparing test standards is a step that connects the definition stage with the design stage. The tests are prepared based on the specifications of the learning objectives and student analysis, then a grid of learning outcomes tests is compiled. The tests developed are adjusted to the level of cognitive ability. Scoring test results use an evaluation guide that contains key scoring guidelines for each question item.

#### **Media selection (media selection)**

Media selection is carried out to identify learning media that are relevant to the characteristics of the material. In addition, media are selected to suit concept analysis and task analysis, target user characteristics, and deployment plans with varying attributes of different media. This is useful for helping students achieve basic competencies.

In selecting media, the product produced in this development research is a Flipbook-based e-module with Flipping Book PDF Professional software. Flip PDF Professional is a feature-rich Flipbook creation application and has a page editing function that is quite easy to use. The features contained in this application include video, music, audio, hyperlinks, Flash animation, and others.

### **Format selection**

The choice of format in product development is intended to design or design learning content, selection of strategies, approaches, learning methods, and learning resources. The format chosen is one that meets the criteria of being interesting, making it easier and helpful in learning Pancasila Education.

The resulting e-module that has been created can be turned over like a 3D book. The output formats provided by this application are (.exe), (.app), (.fbr), and (.html). Specifically, the features of the e-module being developed can be described as follows

1. E-modules have their own identities, such as CP, Learning Objectives, and Competency Performance Indicators.
2. The e-module contains concept maps according to the competency performance indicators achieved in learning.
3. E-modules are designed with colors and fonts that attract students' attention. The e-module contains learning levels
4. E-modules supported by Flip PDF Professional contain Pancasila Education learning materials and images in digital information in plain text, \*pdf, and \*jpeg formats, complete with learning videos.
5. E-modules use learning approaches, methods, and models that are appropriate to the learning material.
6. E-modules supported by Flip PDF Professional include exercises and answer sheets.
7. E-modules supported by Flip PDF Professional are more comfortable to use both online and offline.
9. Available output formats are Mac App, HTML, EXE, Zip, FBR, Burn to CD, and Mobile version.
8. E-modules can be flipped like a 3D E-modules can be easily operated by PC and mobile.
9. The following is the initial design of a Flipbook-based e-module using Flipping Book PDF Professional software:

This section contains the title of the e-module, the main material discussed, images that correspond to the material, name, class, semester, and author's name. Covers are designed using Adobe applications. The appearance of the E-module cover can be seen in Figure 1.

Figure 1. E-module cover



### Foreword

The foreword contains expressions of gratitude to Allah SWT, who has given us all His guidance, grace, and gifts. Thank God, Alhamdulillah, the author can present an e-learning module on Pancasila Education containing the material "History of the Birth of Pancasila" for class VII SMP and equivalent. The following is a display of the e-module introduction page.

Figure 2. E-module Preface Page



### List of contents

This section contains a general overview and location of the contents of the e-module, which aims to make it easier for readers to find the desired page. This list contains the historical background of the birth of Pancasila, the birth of Pancasila, the formulation and establishment of Pancasila, and examples of attitudes in line with Pancasila values. The appearance of the table of contents page can be seen in the following image.

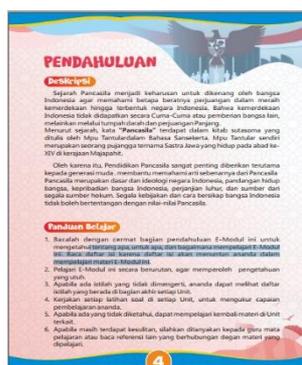
Figure 3. E-module Table of Contents page



### Introduction Page

The introduction to the e-module contains a description and learning guide about what it is for and how to study this E-module. Read the table of contents because the table of contents will guide readers in studying the material in this E-module. The introductory page display can be seen in Figure 4 below.

Figure 4. E-module Introduction Page



### E-module Instructions for Use

This section contains instructions for using the e-module according to the "study guide" in the introduction section. Apart from that, there are instructions on how to view learning videos and how to do practice questions. The instructions page can be seen in Figure 5 below;

Figure 5. E-module Instructions Page



## Concept maps

This section contains an explanatory chart about the concepts that must be studied, namely the history of the birth of Pancasila, including the historical background of the birth of Pancasila, the birth of Pancasila, the formulation and mapping of Pancasila, and the application of Pancasila values in life. The e-model concept map page display can be seen in the following image.

Figure 6. E-module concept map



## E-module material

This section explains the e-module material according to the concepts previously explained. The e-module material has 13 pages (pages 7-19). The e-module learning material page display can be seen in the attachment.

## Student worksheet

This section contains practice questions related to the material that has been studied. The questions given are adjusted to indicators of material competency achievement. The student worksheet page display can be seen in Figure 7 below.

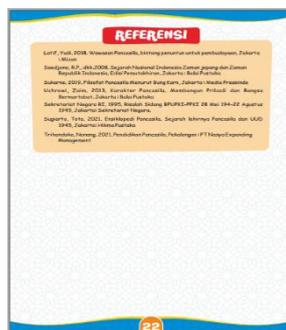
Figure 7. E-module Student Worksheet



## Reference

This section contains references that support learning material in creating e-modules. The reference page display can be seen in the following image.

Figure 8. Reference



### Glossary of Terms

This section contains terms in the learning material to make it easier for readers to understand the material provided. The term list page can be seen in the following image

Figure 9. Glossary of Terms



### Stage III Development

The development stage aims to produce an e-module that has been revised based on input from experts. This stage includes product validation by experts, and the aim is to get input from experts on the content of the e-module being developed.

If the e-module being developed is not yet valid, a revision will be carried out, but if the e-module is valid, then a limited test will be carried out. This e-module development stage aims to produce an e-module that has been revised based on input from experts so that an e-module can be obtained that is valid to use and can be used in trials.

Before being tested, the e-module was assessed and validated by three validators, consisting of 1 material expert validator, one media expert validator, and two language expert validators. At this stage the researcher carries out revisions according to suggestions from the validator. The revision process is carried out until the e-module has been declared valid and suitable for testing.

### Material expert

Material expert validation involves material experts, namely Prof. Dr. Maria Montessori, M.Sc. M. Ed. In validating the e-module, material experts provide suggestions and assessments to improve the e-module with a B grade, namely that it can be used with minor revisions. Revision suggestions from material experts are to improve the title and use more appropriate diction. Furthermore, the validation results from material experts can be seen in the following table.

**Table 4.** Validation Results of Teaching Materials

Assessment Aspects	Total	Score	Category
Eligibility of content	43	90	Very Valid
Feasibility of Presentation	37	84	
Language Eligibility	31	86	
Contextual	31	86	
Averages		86	

Based on Table 4.4, the validation results of the e-module material test show an average validation value of 86%. This shows that the e-module with the Flipbook Application for Class VII (Seven) Pancasila Education Learning, which was developed materially, is very valid and worth testing.

### Media Expert

Media validation was validated by media experts, namely Prof. Dr. Dharmansyah, S.T., which validated consisted of 1) e-module measurement aspect with 2twoitems; 2) e-module cover design (Cover) with seven items; 3) design content with 18 items. In validating the e-module, media experts provide suggestions and assessments for improving the e-module with a B grade, namely that it can be used with minor revisions. Revision suggestions from media experts are 1) to reduce the Garuda image on the cover, not overlay the map image, 2) avoid using red in the text, and 3) make the video offline, not online. Furthermore, the validation results from media experts can be seen in the following table.

**Table 5.** Results of Validation of Teaching Material Media

Assessment Aspects	Total	Validation Value	Category
Module Size	7	88	Very Valid
Module Cover Design	23	82	
Module Content Design	61	85	
Averages		85	

Based on the validation results of the graphics e-module, the average validation value is 85%. This shows that the e-module with the Flipbook Application for Class 7 Pancasila Education Learning, which was developed as media teaching material, is very valid and worth testing.

### Linguist

Language validation was validated by two linguists, namely Prof. Dr. Ermanto, M. Hum, and Prof. Dr. Agustina, M. Hum, which was validated consisted of 9 statement items. In validating the e-module, media experts provide suggestions and assessments for improving the e-module with a B grade, namely that it can be used with minor revisions. Revision suggestions from linguists are 1) editing the manuscript as in the manuscript and revising regarding writing rules. The validation results from language experts can be seen below.

**Table 6.** Results of Language Validation of Teaching Materials

Assessment Indicators	Item	Evaluator		Analysis				V	Category
		V1	V2	S1	S2	$\sum s$	$n(c-1)$		
Straightforward		4	4	3	3	6	6	1,000	Very Valid
	Accuracy of sentence structure sentence effectiveness	4	3	3	2	5	6	0,833	Very Valid
Communicative Dialogic and Interactive	standardness of terms understanding the message or information	3	4	2	3	5	6	0,833	VeryValid
	ability to motivate students suitability of students' intellectual development suitability to the level of emotional development of students grammatical accuracy spelling accuracy	3	4	2	3	5	6	0,833	Very Valid
Suitability to student development		4	4	3	3	6	6	1,000	Very Valid
		4	4	3	3	6	6	1,000	Very Valid

Conformity with language rules	3	3	2	2	4	6	0,667	Very Valid
Averages	3	3	2	2	4	6	0,667	Very Valid

Based on the table, it shows that the average value of Aiken's V coefficient is 0.87 in the very valid category. This shows that the e-module with the Flipbook Application in Class 7 Pancasila Education Learning, which was developed as a linguistic teaching material, is very valid and worth testing.

**Revision**

Based on the results of validity tests by experts, the results of the revision of e-module teaching materials with the Flipbook Application for Pancasila Education Learning are as follows:

**Table 7. Revision Results of the Material Expert E-module**

<p>Before Revision</p> 	<p>After Revision</p> 
<p>Title Revision</p> 	<p>Revised</p> 
<p>Do Not Overwrite the Map Image</p> 	<p>Revised</p> 
<p>Fixed comma</p>	<p>Revised</p>

## Practicality Trial

The e-module, which has been validated by experts after being revised, is then tested with the aim of obtaining information on whether the e-module created is practical for use in class 7 in the implementation of Pancasila education learning.

In this research, practicality was seen by conducting trials on students, and then practicality was seen using a questionnaire that had been filled out by educators and students. After completing the questionnaire by students and teachers, practical interviews were conducted with teachers and students. Interviews were conducted with three students consisting of 1 high-ability student, one medium-ability student, and one high-ability student.

## Results of the Practicality Test Questionnaire by the Teacher

The questionnaire was given to 1 head of SMP N 6 Bukittinggi and three educators, namely Linda Tes Herawati as PPKn teacher at SMPN 6 Bukittinggi, Dessy Endriani as head of MGMP PPKn SMP Bukittinggi City and Nina Nazir as teacher at SMPN 7 Bukittinggi. The general results of the questionnaire analysis can be seen in the following table.

**Table 8.** Results of E-module Practicality Assessment with Educators

Assessment Aspects	Average per Aspect	Category
Interests	88,54	Very Practical
Material	89,58	
Language	89,06	
Average (%)	89,06	

It is known that the results of the practicality of e-modules with educators generally have an average score of 89%. This shows that the e-module with the Flipbook Application in Class VII (Seven) Pancasila Education Learning is very practical. Thus, the e-module with the Flipbook Application for Class VII (Seven) Pancasila Education Learning that was developed is practical and worthy of being tried out. The overall results of the practicality questionnaire assessment with educators can be seen in Appendix 9.

## Limited Trial

The limited trial or small-scale test involved 8 class VII students. Students are only given e-module teaching materials with the Flipbook Application for Pancasila Education Learning. The results of student responses are analyzed using a standard scale on a scale of 5. Various suggestions and comments from students are used as material for revision or improvement. The results of the assessment of the practicality of learning tools by students in limited trials can be seen in the table.

The results of the e-module limited trial questionnaire by students, in general, can be seen in the following table.

**Table 9.** Results of E-module Limited Test Assessment with Students

Total Number of Students	Assessed Scores	Average Per Aspect	Category
8	Interests	89	Very Practical
	Material	84	
	Language	86	
Averages (%)		86	

It is known that the results of the practicality of e-modules with students generally have an average score of 86%. This shows that the e-module with the Flipbook Application in Class VII (Seven) Pancasila Education Learning is very practical in terms of interest, material, and language. Thus, the e-module with the Flipbook Application for Class VII (Seven) Pancasila Education Learning that was developed is practical and worthy of trial.

#### Results of Interviews with Educators

Interviews with educators were conducted when they returned home from school after the educators had seen the e-module that had been developed. Interviews were conducted with three educators, namely Linda Tes Herawati, S.Pd, Nina Nazir, S.Pd, and Dessy Endriani, S.Pd. This was done to see the practicality of the e-module. The results of interviews with educators generally showed that the e-module was good, but the choice of color needed to be considered again. Don't be too busy and flashy. Apart from that, e-modules are very useful for educators.

By design, e-modules are attractive. The e-module is also considered to be very helpful for teachers in teaching material on the History of the Birth of Pancasila. In terms of use, it is considered very useful because, currently, schools are preparing digital schools. In terms of material, it is appropriate to the learning material. This e-module also makes students active in learning. This e-module is also suitable for use in learning. The language used in the e-module is also easy for students to understand.

#### Results of Interviews with Students

Interviews were conducted with three students consisting of 1 ability student, one medium-ability student, and one high-ability student. This interview aims to find out the practicality of e-modules according to students. The aspects asked for in the interview are interest, easy-to-understand material, and easy-to-understand language. Based on interviews with students, it was concluded that using e-modules was liked and enjoyable. The material is easy to understand because

the language used is easy to understand. The appearance of the e-module is also attractive so that students are more helped when studying when using the e-module.

### **Effectiveness Testing**

At this stage, it is a field trial or large-scale test. This test was carried out on a wider range of subjects. The field trial aims to find out how effective the e-module with the Flipbook Application is in Class VII (Seven) Pancasila Education Learning. This field trial involved 30 Class VII students at SMP N 6 Bukittinggi. This field trial carried out a written test in the form of essay questions. This test was carried out to measure aspects of the effectiveness of using E-modules in terms of the percentage of students' classical completion. According to Mulyasa, the learning process is said to be successful if, classically, 75% of students complete it (Sari, 2022). At this stage, tests are carried out at the end of learning for class VII Bukittinggi students to determine student learning outcomes after using the e-module. If student learning outcomes after using the e-module are good, then the e-module developed is declared effective.

The aspects assessed at the effectiveness stage were seen using test question sheets given to 30 students. The test question sheet consists of questions about the ability to understand the history of the birth of Pancasila. The test questions include four indicators, namely: 1) Students are able to explain the background to the birth of Pancasila as a gift from God Almighty; 2) Students are able to explain the birth process of Pancasila as the basis of the state; 3) Students are able to explain the process of formulating Pancasila as the State Foundation; and 4) Students are able to explain the process of establishing Pancasila as the State Foundation.

The results of the effectiveness test of the Pancasila Education Learning abilities of class VII students at SMP Negeri 6 Bukittinggi on the material on the history of the birth of Pancasila show the following level of success:

**Table 10.** Results of E-module Effectiveness Assessment

<b>Achievement Level (%)</b>	<b>Total Number of Students</b>	<b>Percentage (%)</b>	<b>Success Criteria</b>
81-100	5	16,7	Very Worth it
61-80	21	70,0	Worth it
41-60	4	13,3	Less worth it
21-40	0	0	Not worth it
<20	0	0	It is not worth it
Total	30	100	

Based on 30 students, the average percentage of student test results was five students, or 16.7%, in the very worthy category, 21 students, or 70%, in the worthy category, and four students, or 13.3%, in the decent category. Not worthy. There are no students who are categorized as unfit and very unfit. The percentage of effective and very effective, when added up, is 86.7%. This value shows that classically, 75% of students have completed. It can be concluded that the e-module with the Flipbook Application for Class VII (Seven) Pancasila Education Learning that was developed has been effective in achieving complete student learning outcomes.

### **Discussion**

The result of the development research is an E-module with the Flipbook Application in Class 7 Pancasila Education Learning, which in this research uses a 3D from a 4D development model that begins with the defined design and ends with the development stage.

The e-module with the Flipbook Application in Class VII (Seven) Pancasila Education Learning was declared suitable for application with the criteria of being valid, practical, and effective. Valid criteria were obtained based on validation results from 3 experts after revision, both for graphics and material. Practical criteria were obtained based on analysis of the results of small/limited practicality trials and interviews regarding interest, material, and language of the E-module with the Flipbook Application. Effectiveness is obtained from the results of the analysis of student ability tests both descriptively and statistically. Next, a discussion of the research results will be discussed according to the research objectives as follows.

### **Development of E-modules for Learning Pancasila Education using the Flipbook application at SMP Negeri 6 Bukittinggi**

In this research, the development of E-modules with the Flipbook Application in Class VII (Seven) Pancasila Education Learning uses a 4D development model, which begins with the defining, designing, and ending development stages.

At the definition stage, researchers analyzed data presentation material, analyzed students, analyzed e-modules, and analyzed problems found in class 7 regarding e-modules. The analysis definition stage is carried out at the front end: student analysis, concept analysis, task analysis, and goal formulation. Based on the problems at the analysis stage that have been explained in the research results, an e-module for Class 7 Pancasila Education Learning was developed, which was suitable for using the Flipbook Application on material about the history of the birth of Pancasila.

Modules need to be combined with electronic media to reduce student learning boredom with modules, which are often called electronic modules (e-modules). E-modules are open materials in the form of modules displayed in electronic format, which are expected to increase student interest and motivation in learning (Munthe et al., 2019). According to Kemendikbud (2017), e-modules are independent learning media packaged in digital form with the aim of realizing learning objectives and increasing student engagement with the application.

The same thing was expressed in that an e-module is a form of independent teaching material that is arranged systematically in language that is easy to understand into the smallest learning units, presented in electronic format, which includes animation, audio, and video, which makes users more interactive with the program. Students need to have the characteristics of electronic modules as above because electronic modules have the potential to increase students' learning motivation (Komikesari et al., 2017).

Based on research that has been conducted, the use of e-modules has been proven to increase achievement and obtain positive student responses (Hakam & Untari, 2021; Mardiana & Harti, 2022; Marizal & Asri, 2022). This is in line with the work by Adawiyah et al. (2023). One of the software for creating e-books in Flipbook format is Flipping Book PDF Professional. Flipping Book PDF Professional is an interactive media that makes it easy to add various types of animated media to Flipbook.

This media is easy to operate and does not require special skills. Just click the link, making it easier for teachers to create e-modules (Seruni et al., 2019). Keunggulannya membuat peserta didik semakin ingin tahu tentang materi pembelajarannya (Marizal & Asri, 2022).

The design stage involves preparing test standards, selecting media that suits the characteristics of the material and learning objectives, selecting the format of the teaching materials to be developed, and making an initial design according to the format that has been chosen. The results of the design for preparing test standards are prepared based on the specifications of learning objectives and student analysis, then a grid of learning outcomes tests is compiled. The tests developed are adjusted to the level of cognitive ability. Scoring test results use an evaluation guide that contains key scoring guidelines for each question item. In selecting media, the product produced in this development research is a Flipbook-based e-module with Flipping Book PDF Professional software. Flip PDF Professional is a feature-rich Flipbook creation application and has a page editing function that is quite easy to use.

The format chosen is one that meets the criteria of being interesting, making it easier and helpful in learning Pancasila Education. The resulting e-module that has been created can be turned over like a 3D book. The output formats provided by this application are (.exe), (.app), (.fbr), and (.html).

The initial design of the e-module contains a cover, foreword, table of contents, introductory page, instructions for using the e-module, concept map, material content, bibliography, and finally, a list of terms. It is correlated with the study conducted by Anwar (2010) the characteristics of the learning module are as follows: 1) Self-instructional, students are able to teach themselves without depending on other parties; 2) Self-contained, all learning material from one competency unit studied is contained in one complete module; 3) Stand-alone, the module developed does not depend on other media or does not have to be used together with other media; 4) Adaptive, the module should have high adaptive capacity towards developments in science and technology; 5) User friendly, the module should also meet the rules of being friendly/familiar with its users; 6) Consistency, be consistent in the use of fonts, spacing, and layout.

The development stage was carried out by creating and producing e-modules for data presentation material in the form of e-modules that had been validated by experts, and researchers carried out limited tests to see the usability of the e-modules. Based on validation, the instrument expert stated that the general instrument assessment of the validation instrument validation format for the Pancasila Education Learning E-module with the Flipbook application received an A grade. That is, it can be used without revision. In design validation, the expert provided a general assessment of the validation format for the Pancasila Education Learning E-module with the Flipbook application in category A, namely that it can be used without revision. In validating the e-module, material experts provide suggestions and assessments to improve the e-module with a B grade, namely that it can be used with minor revisions, namely improving the title terms and using more appropriate diction.

Based on validation results, experts show that the graphics e-module shows an average validation value of 96%. The validation results of the e-module material test show an average validation value of 89.75%. This shows that the e-module with the Flipbook Application for Class VII (Seven) Pancasila Education Learning was developed as a valid teaching material and worth testing.

Next, in the development stage, small/limited practicality trials are carried out. The results of the educator response questionnaire show that the e-module with the Flipbook Application in Class VII (Seven) Pancasila Education Learning is very practical. Therefore, the e-module with the Flipbook Application for Class VII (Seven) Pancasila Education Learning that was developed is practical and worthy of trial. The results of the practicality of e-modules with students in general have an average score of 86%. This shows that the e-module with the Flipbook Application in Class VII (Seven) Pancasila Education Learning is very practical. Therefore, the e-module with the Flipbook Application for Class VII (Seven) Pancasila Education Learning that was developed is practical and worthy of trial.

This stage was strengthened by interviews with educators and students who concluded that the e-module was good but needed to reconsider color selection. Don't be too busy and flashy. Apart from that, e-modules are very useful for educators. By design, e-modules are attractive. The e-module is also considered to be very helpful for teachers in teaching material on the History of the Birth of Pancasila. In terms of use, it is considered very useful because, currently, schools are preparing digital schools. In terms of material, it is appropriate to the learning material. This e-module also makes students active in learning. This e-module is also suitable for use in learning. The language used in the e-module is also easy for students to understand.

In line with the opinion by Arsyad (2016), the feasibility of developing this E-module is measured by three aspects of indicators, namely: (1) Quality of content & objectives (media accuracy, completeness, suitability for students). (2) Instructional quality (learning opportunities, providing learning assistance, motivating quality, instructional flexibility). (3) Technical quality (readability of media, & display quality).

### **Effectiveness of E-modules in Learning Pancasila Education with the Flipbook Application at SMP Negeri 6 Bukittinggi**

Effectiveness testing using field or large-scale trials involving 30 students, the achievement level was 70% in the feasible category and 16.7% in the very feasible category. The percentage of feasible and very feasible when added up is 86,7%. This value shows that classically, 75% of students have completed. It can be concluded that the e-module with the Flipbook Application for Class VII (Seven) Pancasila Education Learning that was developed has been effective in achieving complete student learning outcomes.

Thus, the novelty of this research is in the form of an educational product in the form of an e-module with the Flipbook Application for Class VII (Seven) Pancasila Education Learning. This teaching material in the form of an e-module is very suitable for learning, especially during the pandemic and entering the COVID-19 pandemic. E-modules are considered very practical and interactive, making it easier for teachers and students in the teaching and learning process.

Students' use of Flipbook media can increase their interest in learning and can also influence students' achievement or learning outcomes. Students' use of Flipbooks can also increase understanding and improve learning outcomes (Hidayatullah & Rakhmawati, 2016).

Based on the results of the Pancasila Education study, several things were found that needed to be improved in terms of improving student learning, including in learning Pancasila education with the Flipbook application. The implementation of Class VII (Seven) Pancasila Education Learning shows that it does not reflect collaborative learning because 1) there are different roles between students when working on assignments in groups using e-modules and in conventional groups because the groups are homogeneous, 2) they have not maximized the role of teachers as mediators and facilitators to facilitate the occurrence of high positive dependence among students, 3) there are no steps that force teachers to maximize their role as mediators and facilitators in order to foster a sense of empathy and courage in students to ask for help from their friends so that positive dependence occurs among students; 4) Teachers do not master technology, so learning is presented conventionally. Even though some have used e-modules, they still have weaknesses in their application. 5) When providing practice questions, teachers rely on LKPD, which tends to make students bored because it is not combined with other media.

The Flipbook-based e-module for the Pancasila Education subject is specifically designed to be an interesting learning resource and teaching material for students so that it can increase students' interest in learning Pancasila Education. The modules developed are also designed to be learning media for teachers in providing material to students and as reference material for teachers and writers themselves in developing interesting teaching materials for students.

Theoretical support, empirical support, and researchers' arguments in developing Flipbook-based e-modules referring to the benefits and characteristics of e-modules in learning make users more interactive in learning. Oktaviara & Pahlevi, 2019 Prasetya et al. (2017) revealed that The benefits of e-modules in learning are that they can be taken anywhere, they can be used at any time, e-modules can also present information in a structured and interesting manner, and the learning

process no longer depends on educators. The characteristic of e-modules is their small form, which makes them easier to use in small rooms. It is possible to store information on a flash drive or mobile phone and have access to it anywhere, and the module also has animations and simulations that can help students learn the material, as well as the opinion of Priwanto et al. (2018), Flipbook maker is software that is used to make a book display into a digital electronic book in the form of a flipbook. Apart from that, this software can be developed to create electronic modules that can be used as learning media, which include animation, audio, sound, and navigation, which will make users more interactive in learning.

The Flipbook-based e-module developed is designed to provide interactive learning so that students are not monotonous. By using this learning media, it is hoped that it can provide updates in the learning process in the classroom. Students' use of Flipbook media can increase their interest in learning and can also influence students' achievement or learning outcomes. Students' use of Flipbooks can also increase understanding and improve learning outcomes (Hidayatullah & Rakhmawati, 2016).

By using students' Flipbooks, students will be interested in participating in learning because there is an animation that resembles them physically opening a book when they want to turn the pages. By utilizing this Flipbook, it is also hoped that it can revitalize the education sector. Students' use of Flipbooks can increase interest, increase understanding, and improve student learning.

This research is in line with research conducted by several previous studies, for example, Mardiana & Harti (2022), regarding the development of Flipbook-based e-modules to increase vocational school students' understanding of customer relations material. The study by Ameriza & Jalinus (2021) discusses the development of e-modules with Flipbook in the Simulation and Digital Communication Subjects for class X students. The paper by Asmi et al. (2018) explores the development of e-modules based on the Flip Book Maker application in the Pancasila Education course. All of the research uses Flipbook-based e-modules but uses various software, such as Android-based Flip Book Makers, while this research uses Flipbook with Flipping Book PDF Professional software. Flipbook PDF Professional Edition is very easy to use in learning, easy to operate, and no skills are required. Just click the link (Asmi et al., 2018).

## CONCLUSION

Based on the results of research conducted on the development of the Pancasila education learning e-module using the flipbook application, it can be concluded that the Pancasila education learning e-module using the flipbook application on the history of the birth of Pancasila material is valid and suitable for use in the learning process. This can be seen based on validation and practical questionnaire results by expert validators and educational practitioners, which have been carried out on the e-module being developed. The Pancasila education learning e-module with the flipbook application developed has provided navigation buttons that are connected to each other so that users can easily operate it independently.

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