

## DEVELOPMENT OF MEDIA PONARI FOR CIVIC EDUCATION LEARNING

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### ABSTRACT

This study to develop learning media, find out the feasibility of the media, and find out the differences in learning outcomes before and after using multimedia-based learning media using Macromedia Flash 8 on the material Harmonization of Human Rights and Obligations in the Pancasila Perspective PPKn subjects in class XI 1 Kademangan Public High School .

Determination of the feasibility level of multimedia-based learning media based on expert validation tests and small-scale trials was then applied to the sample class. Data collection techniques using questionnaires, and tests. Thus can help the effective learning process to improve student learning outcomes, by looking at the results of the average and completeness of student learning.

**Keywords:** Macromedia Flash 8; PPKn; Development

### INTRODUCTION

Education is the main capital for a nation in an effort to improve the quality of Human Resources. Quality human resources will be able to manage natural resources and provide services effectively and efficiently to improve people's welfare. All nations try to improve the quality of education, including Indonesia.

Based on the results of observations made by learning researchers at SMAN 1 Kademangan, the learning process is still centered on educators. The learning activities carried out make students tend to be passive in the teaching and learning process.

From the problems that arise making researchers set a first step to overcome the problem, the first step that will be done is to develop in the learning process in order to improve student achievement, the development is by establishing interactive powerpoint visual media that uses Macromedia flash 8 software in it there are texts, animations, images, and sounds that will make the display of learning media more interesting, with the existence of these solutions researchers used media PONARI for civic education learning.

## **RESEARCH METHODS**

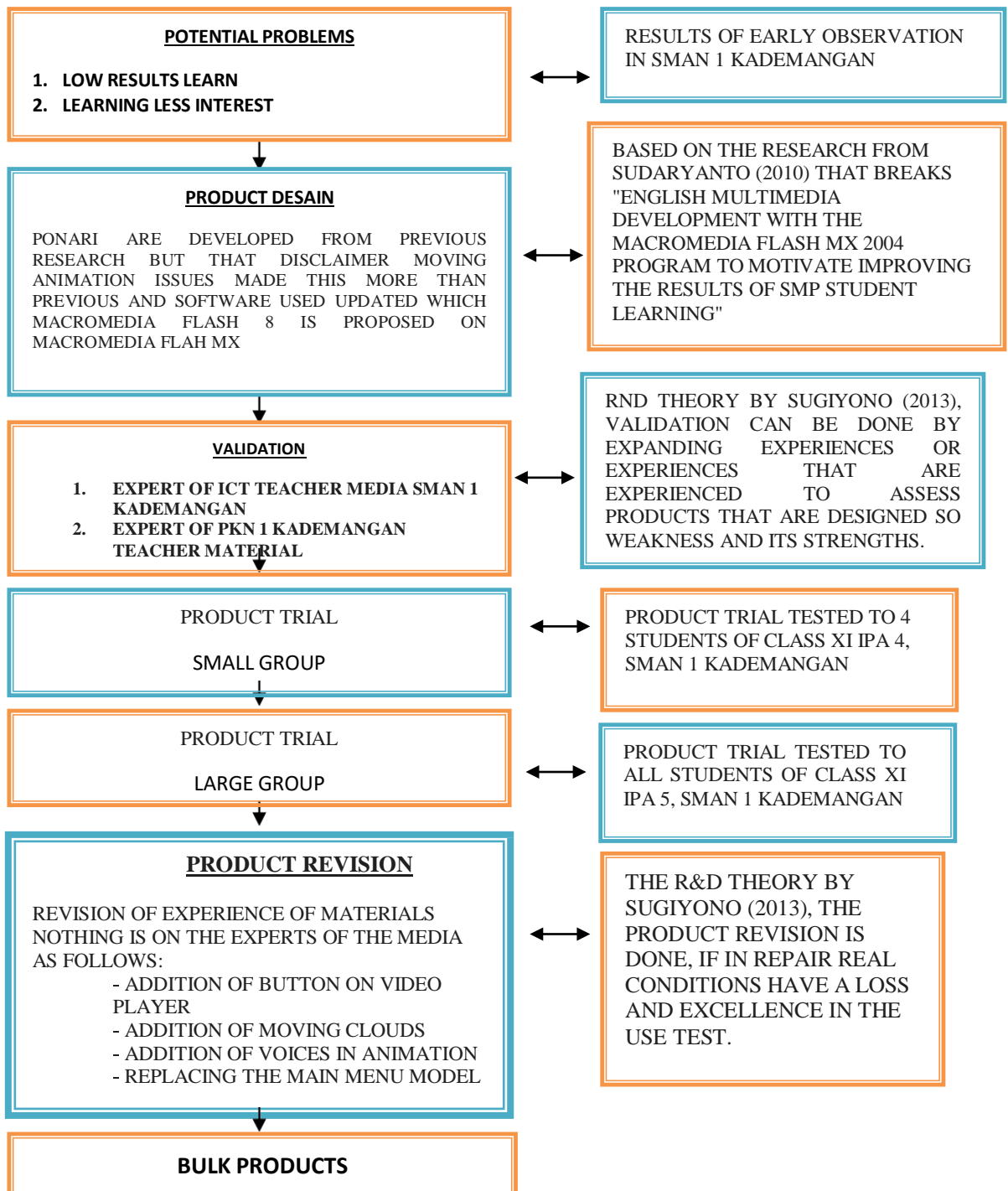
The research methods used by researchers are Research and Development. This research is research that is used to produce certain products, and test the effectiveness of these products (Sugiyono, 2015: 407). This research was carried out to develop and test the feasibility of PONARI for civic education learning used the program Macromedia Flash 8.

The analysis technique in this study is as follows :

### **1. Planing product material**

Researchers need to do planning related to the product-making material which consists of Macromedia Flash 8 software, high school class Civics Civics class XI material consisting of summaries, images along with explanatory information in the form of sound effects and animations. The following is the research product development flow.

**DEVELOPMENT OF MEDIA PONARI FOR CIVIC EDUCATION  
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**Picture 3.20 Hipotetic Model**

## 2. Validate Product Design

Learning media will be evaluated and assessed by several expert teams. This stage aims to examine the validation of learning media, learning program material and the quality of learning. There are several steps taken, name: Validation from the Civic Education material expert, Mr. Arief H.P., M.M and Media Expert by Mr. Fuad Hassan S.Kom, a teacher at SMAN 1 Kademangan. Then do the product trial technique which is carried out in several stages, namely:

- 1) Test small groups that researchers will take from student of SMAN 1 Kademangan class XI IPA 4 totaling 10 person.
- 2) The large group that researchers will take from student of SMAN 1 Kademangan class XI IPA 5 totaling 27 person.

Spread questionnaires to ask for input, suggestions, criticism from teachers, students and other experts. While for data collection techniques in research conducted by questionnaire

## 3. The Analysis Technique

The analysis technique used in this study is quantitative descriptive analysis, namely the method used to convert quantitative data into a qualitative form with a scale of 5 (likert scale) adapted from Sugiyono (2012: 93), to determine the feasibility of scale conversion 5 developed by Sugiyono (2012: 89) as stated in the following table:

**Table 3.4 Quantitative Descriptive Analysis**

Data Kuantitatif	Interval Score	Criteria
5	$X > \bar{x}_i + 1,80 S_{Bi}$	Very good
4	$\bar{x}_i + 0,06 S_{Bi} < X \leq \bar{x}_i + 1,80 S_{Bi}$	Good
3	$\bar{x}_i - 0,06 S_{Bi} < X \leq \bar{x}_i + 0,06 S_{Bi}$	Enough
2	$\bar{x}_i - 1,80 S_{Bi} < X \leq$	Not good
1	$X < \bar{x}_i - 1,80 S_{Bi}$	Not very good

Source : Sugiyono (2012 : 89)

$\bar{x}_i$  = Rerata =  $1/2$  ( score maksimal + score minimal)

$S_{Bi}$  = ideal standart deviation=  $1/6$  ( skor maksimal – score minimal)

X = score empiris

Based on the table guidelines above the conversion of scale 5 data values, then after getting quantitative data-data to change into qualitative in this development, the conversion formula is applied as follows:

Score maximal ideal = 5

Score minimal ideal = 1

$$\bar{x}_i = 1/2 (5+1) = 3$$

$$S_{Bi} = 1/6 (5-1) = 0,6$$

$$\begin{aligned}
 \text{Scale 5} &= X > 3 + (1,08 \times 0,6) = X > 3 + 1,08 \\
 &= X > 4,08 \\
 \text{Scale 4} &= 3 + (0,6 \times 0,6) < X \leq 4,08 \\
 &= 3 + 0,36 < X \leq 4,08 \\
 &= 3,36 < X \leq 4,08 \\
 \text{Scale 3} &= 3 - 0,36 < X \leq 3,36 \\
 &= 2,64 < X \leq 3,36 \\
 \text{Scale 2} &= 3 - (1,08 \times 0,6) < X \leq 2,64 \\
 &= 3 - 1,08 < X \leq 2,64 \\
 &= 3 - 1,08 < X \leq 2,64 \\
 &= 1,92 < X \leq 2,64 \\
 \text{Scale 1} &= X \leq 1,92
 \end{aligned}$$

On the basis of calculating the conversion formula, the conversion of quantitative data into scale 5 qualitative data is simplified into the following Likert scale:

**Table 3.5 Scale Likert**

No	Interval Skor	skor	Criteria
1	$X > 4,08$	5	Very good
2	$3,36 < X \leq 4,08$	4	Good
3	$2,64 < X \leq 3,36$	3	Enough
4	$1,92 < X \leq 2,64$	2	Not good
5	$X \leq 1,92$	1	Not very good

Source : Sugiyono (2012 : 93)

In accordance with the guidelines in the table, the scores in this research and development set the feasibility value of products developed at least "3" in the category of "good enough", from the results of feasibility assessments from material experts, media experts and students. If the final result has been obtained with a minimum value, then the product of the development is deemed feasible to use.

## RESEARCH RESULTS AND DISCUSSION

The results of the interviews and direct observations were used as the basis for the analysis of research on the making of PONARI media for civic education learning. In this study a questionnaire was used to determine the effectiveness of PONARI media use in learning.

Based on the problems and potential above, researchers feel the need to develop multimedia-based learning media using Macromedia Flash 8 that can overcome these problems, the first step that will be done is to develop in the learning process in order to be able to improve student learning outcomes, namely development by setting powerpoint media interactive in which there are text, sound and animation effects that will make the display of learning media more interesting, with the existence of the solution the researcher sets the PONARI media that is an attractive powerpoint animation for civic education learning to overcome the problems that occur.

The second stage, the researcher makes a product design that will be realized in the form of learning media products using Macromedia Flash 8. software The design designed by the researcher determines the development of therealized media. The design was made in the form of an interactive powerpoint which included material in class XI about the Harmonization of Human Rights and Obligations in the Pancasila Perspective.

The third stage is the implementation phase is the embodiment of design into a media. The embodiment of the design into the media uses Macromedia Flash 8 software, where there are several advantages to using this software, including the final result of Flash is smaller after publishing, able to import almost all image and audio files.

After the product is finished in production, the researcher then performs the testing phase. Testing is the stage where product design through the validation stage by experts and a small group test is then applied to the experimental class. There are 2 experts in this product validation, namely 1 material expert and 1 media expert. The feasibility test by material experts and media experts is in accordance with the testing aspects of the existing media research. Validators in this study were Mr. Drs. Arief H.P., M.M as civic education subject teacher at SMAN 1 Kademangan for material experts in this development. Media validation was carried out by Mr. Fuad Hassan, S. Kom as Tik subject teacher at SMAN 1 Kademangan for media experts in this development. For the results obtained the product is declared good. The material validation aspects include the quality of the content of the material compatibility with KI and KD, the truth of the concept and the accuracy of the material, while the aspects of media validation include aspects of text suitability, format suitability, image display, color, animation and sound, use aspects good and correct spelling and language suitability.

### Trial of Small Group Products

After the PONARI media is created, validity will be carried out involving several validators who are experts in their fields, namely material experts, and media experts. Then the product is validated, then the researcher will conduct a small group test conducted by 10 students at XI IPA 4 at SMAN 1 Kademangan, before the media is tested in a large class.

#### Result of class XI IPA 4 :

**Table 4.1 Result pretest dan post test Small Group**

No	Name	Rated aspect	
		<i>Pre Test</i>	<i>Pro Test</i>
1	AGNES MARIA CANTIKA	40	70
2	ARNID DWI WARDANNY	30	80
3	BAYU PUTRA DEWANGGA	30	70
4	FARAH AFZA MULYA	30	80
5	HENDYTO FASKAL ABDUL W.	50	80
6	JIHAD ARDIANSANSA	20	70
7	LINDA FEBRIANTI	50	90
8	PUTRA ANDIKA	40	80
9	UMI SOFIA	30	80
10	YUDA INDRAJIT	40	70
	AVERAGE	<b>36</b>	<b>77</b>

Based on the results of the above data, it can be obtained that the average pre- class X IPA 4 score is 36 and the post-test average is 77, while the average pretest value is calculated from t.test. With this it can be concluded that PONARI media is effective to be used as a learning aid.



### Trial of Large Group Products

The next product trial was conducted at SMAN 1 Kademangan in class XI IPA 5 with 27 students in each class, in conducting product trials the researchers prepared several things to obtain the required data, namely the question of pretest, post test and questionnaire.

#### Result of class XI IPA 5 :

**Table 4.2 Result pretest dan post test Large Group**

No	Name	Rated aspect	
		<i>Pre Test</i>	<i>Pro Test</i>
1	AHKLIANA OKTABRIANNISA	30	80
2	ALDAN GYMNASTIAR PUTRA H	30	80
3	AMELIA ANANDA SARI	20	90
4	ANJANI SEPTIANA	50	70
5	ARCELL FERDINAND YUSUF	40	100
6	BELLA NINA KUMALA ANTIKA	20	80
7	CANDRA HADI KUSUMA	40	80
8	CANDRA NUR FATIA SAKINA	50	90
9	DHEA INTAN NABILA AGUSTIN	40	80
10	DHIMAS BAGUS SAPUTRA	40	80
11	EVIN DEFITA SARI	50	90
12	FARELZA ARDIANATA	40	80
13	IKA NOVITASI	40	90
14	MAHARANI RETNO NINGTYAS	60	80
15	MELDA LENA CINDY WIRAYANTI	40	70
16	MIFTAKHUL FARIKA SEPTIANA S	60	80
17	MOCH. ILHAM RIADIANSHAH	30	80
18	OXVYA WULAN NYSA	60	90
19	RAGIL SURYADI PUTRA	40	80
20	RANI FARA DILLA	30	90
21	RISKA KURNIASARI	40	80
22	SINTA FA'IDA WULANDARI	60	100
23	SUVIA DELLA	40	80
24	TRI JULIAN BIMANTARA R	20	90
25	VITA SUKMA DEWI	50	80
26	WAHYU KHOMAIDAH	40	90
27	WULAN FITRIANI ARDITASARI	60	70
	AVERAGE	41,5	83,33

Based on the results of the above data, it can be obtained that the average pre test of class X IPA 5 is 41.5 and the average post test is 83.33, while the average value of the pre test is calculated from t.test. With this it can be concluded that PONARI media is effective to be used as a learning aid. This conclusion is supported by the results of assessments by climatologists, media experts, and small group tests.

### Analysis Result of Media and Material

**Table 4.3 Result of material validation**

No	RATED ASPECT	ASSESEMENT				
		1	2	3	4	5
1	Compatibility of material with KI / KD				√	
2	Spelling and language use				√	
3	Quality and ease of presentation				√	
4	Victory of material delivery			√		
5	Accuracy and correctness of material coverage				√	
6	Accurate and reliable learning resources				√	
7	Coherent material delivery				√	
8	Clarity of instructions for delivering material				√	
9	Providing evaluations to measure students' abilities				√	
10	The involvement and role of students in learning activities				√	
	total	0	0	1	9	0
	total x scale			3	36	
	Total assesement	39				
	average	3,9				
	conglusion	good				

Source : primary procesed

Validation of material experts includes aspects of the content and aspects of learning with the aim of obtaining information, criticism, and input that will be used to obtain the feasibility of macromedia flash 8 based learning media that is developed in terms of material. Based on the experiments, quantitative data were obtained which obtained a mean rating of 3.9 in the aspects of content and aspects of learning, so that they were included in the criteria of good.

**Table 4.4 Result of media validation**

No	Rated aspect	assesement				
	a. Display media	1	2	3	4	5
1	Animatio				√	
2	Selection of fonts				√	
3	Font size selection				√	
4	Image display				√	
5	color				√	
6	Image graphics and position				√	
7	Accuracy of background selection					√
8	Use of language				√	
9	sound music				√	
	<b>b. Program</b>					
10	Navigation				√	
11	Consistent button				√	
12	Clarity of instructions for use				√	
13	Clarity Ease of use usage instructions				√	
14	Efficiency of text				√	
15	Relationship between the sentences per slide				√	
	total	0	0	0	14	1
	Total x scale				56	5
	Total assesement	61				
	average	4,06				
	conglusion	good				

Source : primary procesed

Based on the experiments, quantitative data were obtained which showed that the results of media expert validation covering the display aspects and programming aspects obtained an average rating of 4.06 in the aspect of content eligibility and media aspects, so that it was included in the criteria of **good**. After being validated by material experts and media experts, further tests were conducted on students. The results of the validation of students of class XI IPA 5 can be seen in the following table:

**Table 4.5 Results of student validation XI IPA 5**

No	Indicator	Assesement				
		1	2	3	4	5
1	Compatibility of material with KI / KD	0	0	6	12	6
2	Ease of understanding the material / content of the lesson	0	0	6	13	9
3	Material truth	0	0	5	12	12
4	accuracy of the order in which the material is presented	0	0	3	12	8
5	Material withdrawall	0	2	5	14	8
6	Clarity of learning instructions	0	0	4	7	10
7	Clarity of feedback	0	1	5	11	8

8	Coverage of practice / delivery of questions	0	1	7	14	9
9	The role of learning media to add insight and knowledge	0	0	5	15	11
10	Improve Learning Outcomes	0	0	8	10	13
	total	0	4	54	118	94
	total x scale	0	8	162	472	470
	Total assesement	1112				
	average	4,03				
	conglusion	good				

Source : primary prosed

Based on the experiments, quantitative data were obtained which obtained a mean rating of 4.03 in the aspects of media, content and aspects of learning, so that they were included in the criteria of good.

Differences in learning outcomes before and after using media can be known after doing treatment in the Large class. The treatment was carried out in the sample class or referred to as the large class, namely class XI IPA5, based on the results of the results of the pre test and post test there was an increase in student learning outcomes with an average pre test of class XI IPA 5 of 41.5 and post average scores test 83.33. In addition to testing students in the class, data collection also involves questionnaire responses to find out student responses about the use of instructional media developed and based on the results of the questionnaire responses that have been done can be concluded that the PONARI media for Civic education learning is good and in accordance with what students expect

## CONCLUSION

Based on the results of the trials in the sample class, using the value of pre test and post test there was an increase in student learning outcomes in class XI IPA 5 average pret test of 41.5 and the post test average score of 83.33. The increase in learning outcomes proves if there is a difference between civic education learning outcomes before and after using PONARI media using Macromedia Flash 8. Software Based on the results of questionnaires given to students, it can be concluded that PONARI media is effective in helping the civic education learning process.

## SUGESSTION

The results of this study can provide information to teachers about the importance of innovation in learning media that is related to student learning outcomes. In addition, it can improve the quality of the teaching and learning process so that it will be better in the future.

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