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## **Development of Android-Based Scrapbook Digital Media Material on the Relationship between the Image of the State Emblem and the Precepts of Pancasila State Junior High School 1 Fifty**

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**Abstract.** Currently, teachers only focus on using package books in teaching in the classroom. Without the sophistication of technology that is not combined with teaching media, it will form students who do not show enthusiasm and do not have character in the learning process. Therefore, researchers are interested in making android-based scrapbooks. This study aims to determine the feasibility, practicality and effectiveness of the scrapbook. This research is a research and development or R&D with a model of 4-D to 3-D. The result of this research is that the value of Aiken's V calculation on the validation data of material experts is 0.903 and media experts of 0.8 is classified as suitable for use. Then the results of V Aiken's calculation, student response data of 0.932 and teacher response data of 0.894 are classified as very practical to use during learning. Meanwhile, the calculation of the t-Paired test on the pretest and post-test results obtained a t-count value = 6.18 and a t-table value = 2.039. Since t-count > t-table, it has a "highly effective" criterion. This means that this media provides effectiveness in the learning process in the classroom.

Keywords: Scrapbook; Andoid-Based

### **Introduction**

One of the most basic and influential education for the state of Indonesia is the teaching of citizenship. Civic education is an education that must be provided to all students with the aim of providing an understanding of the rights and obligations of students in the life of society and the state (Handayani et al., 2021:78). In the process of its development, it can be seen that civic education is a very important basic science and has become a dedication in instilling a sense of nationalism and moral values to all students from an early age, so that the student's personality will be formed into a complete human being in accordance with the mandate of the 1945 Constitution, namely as a religious (moral) human being, having a high sense of humanity and nationalism and become an intelligent, populist and just nation. Therefore, mastery of civic education is absolutely needed (Rizkianto et al., 2024:89).

However, currently the development of civic learning in Indonesia is very concerning. This is characterized by, almost some students in Indonesia consider civic education to be one of the boring and not very important lessons, as a result of which students are more likely to be lazy and trivial when dealing with civic learning. Of course, this will have a great influence on the achievement of learning citizenship for students

in Indonesia. According to Widiatmaka et al., (2022:85) explained that Civic Education is a subject and course that has a great responsibility in building the democratic character and tolerance of students, because Civic Education is moral education and must be provided at every level of education from elementary school to university. If you look closely at the substance of the material taught in Civic Education, it should be able to build the character of students, but so far the subject has not been able to build the character of students so it is undeniable that the youth are currently experiencing a character crisis. This can be proven by the many criminal acts committed by youth. Data from the National Narcotics Agency (BNN) shows that the number of drug users in Indonesia until October 2014 is increasing, because approximately 4 million Indonesia citizens are positive as drug users. The majority of users are young people, of the 4 million people who are positive for drug use, 60% are in the age of 8-27 years (Gayo, 2019:93). Another criminal act committed by youth, especially students, is a case of clashes between students triggered by ethnic, religious, racial, and inter-group (SARA) issues that often occur at the University of Kanjuruhan Malang.

Through the above information, it shows that citizenship learning in Indonesia still has not reached the expected level of productivity, with a lot of chaos outside the school environment is a dedication that is so negative for civic learning, integrity that is expected to be the spearhead and good moral values for students are not embedded at all. It is very clear that this shows that students are very trivial with the existence of civic education, they ignore and are indifferent to learning, as a result, it is not surprising that many students skip school, sleep, chat, during civic learning, students do not do the assignments given by the teacher, students are lazy to study and the character values in students are very low (Cynthia, 2021:53). This is the basis why students in Indonesia are not able to provide good examples and role models in the international arena for their love for the country of Indonesia. However, civic education lessons have been included in the school curriculum since the reform era, this indicates that students are obliged to learn civic education. Therefore, the school must fulfill learning facilities by providing learning media that are a reference for learning, so that the implementation of civic education learning is more effective (Windu & Sujana, 2022:34).

In delivering civic education materials, every teacher must be supported by the use of learning media, because this step is one of the most important components in the learning process in schools. Idra & Tunziah, (2021:54) stated that learning media is a very useful material in the learning process, especially being able to interpret the main message conveyed, so that the implementation of learning is achieved with what is targeted. With the availability of learning media in schools, teachers will not have difficulty helping students in understanding civic education. Teachers will find it easier to lead learning in the classroom, and students will also be more motivated to learn, so the use of media in learning activities can dilute an interesting and fun learning atmosphere. That way, civic education will be a pillar of moral cultivation in students.

Learning media has often been managed by teachers as teaching materials in the classroom. The teaching material that is always used to create a learning atmosphere is textbooks. In general, textbooks have the same role as learning media in realizing learning goals, because one of the benefits of textbooks is that they can increase effectiveness and improve the quality of learning (Magdalena et al., 2021:97). To realize a good learning process, textbooks must meet the indicators of learning media. The fulfillment of this indicator will have a great impact on the psychology of students, because students will be more encouraged to read the textbooks that have been provided.

However, the textbooks used by students are not in accordance with expectations. Although the book has been assessed as feasible by the National Education Standards Agency (BSNP), there are still some shortcomings, both in terms of the appearance of the cover and the content, including the relatively large size of the textbook giving difficulties to anyone who carries the book, the appearance of the textbook cover also seems boring, not to mention the presentation of the material explained is too monotonous so that it is difficult to understand (Sitanggang et al., 2023:67). This shows that textbooks do not meet the indicators of learning media, as a result students will not be interested in making civic education a pillar of student life.

Through observations carried out at SMP Negeri 1 Lima Puluh, it appears that around 75% of grade VII students are not motivated to learn civic education even though textbooks are available at school. This is because textbooks do not vary, the appearance of the book is very monotonous, the combination of colors of the book is not encouraging, there are no supporting images, the explanation of the material is long-winded and there are no moral values that boost the change in children's characteristics. This makes students quickly bored in learning civics. Mrs. Mila as a citizenship teacher also admitted that the citizenship textbook still needs to be improved, especially regarding the design of the book, both the cover and the content. This design problem is very important and must be focused on because the existence of a unique design will provide attraction to students in learning (T. Handayani et al., 2023:57). As a result of this condition, it can be seen that students have not been optimal in utilizing the textbooks that have been provided at school.

In addition, through the results of interviews conducted by researchers at SMP Negeri 1 Fifty, it shows that the school has 7 classes used for grade VII students with each class consisting of 32 students, the school already has computer lab facilities, but each classroom is not equipped with LCD and Projector facilities. The educator explained that the media assistance obtained from the government was in the form of posters and printed books. Educators in learning have used a variety of methods such as lectures, discussions, and questions and answers. Educators already understand the importance of tools to transmit message sources in learning, but the media implemented in learning is limited to print books, powerpoint, Microsoft Sway, and YouTube. In the learning process, the obstacles experienced by educators start from the limited number of projectors used alternately and learning media that do not vary. In particular, the use of learning media for the material "The Relationship of the Image of the State Emblem with the precepts of Pancasila" in the subject of Pancasila and Citizenship Education (PPKn) educators is only limited to using simple images and powerpoints.

Educators said that students are less focused on the material provided because the media seems monotonous, therefore the material presented feels difficult for students. The purpose of the PPKn subject media development of the material on the relationship between the image of the state emblem and the precepts of Pancasila is to provide elementary school students with an understanding that Pancasila is the ideology of the Indonesia nation as well as an example of practicing the precepts of Pancasila that can be implemented in daily activities in order to foster tolerance and nationalism. Therefore, in delivering innovative and practical learning, it is necessary to develop interesting media so that learning motivation arises and is easy to operate for grade VII students.

Through the above analysis, it is very necessary to provide new alternatives in the hope of being able to arouse the motivation of every student to learn. Currently, the

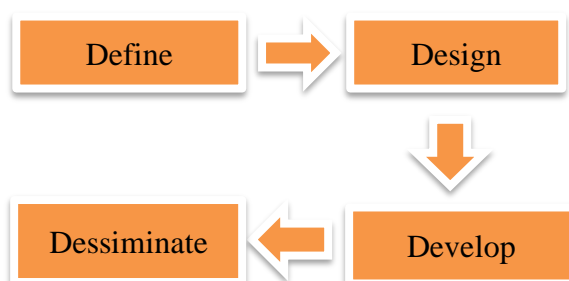
development of learning media is in line with the progress of the times which is accompanied by the development of science and technology (Science and Technology). The development of mobile device technology with the android operating system can be used by educators to create learning media that contains aspects of effectiveness, efficiency, and attractiveness. Mobile devices are not only used in communication media, in line with the development of the world of education, innovating to create learning media that are implemented on smartphones so that the learning atmosphere is not limited by space and time (Nurillahwaty, 2022:87).

Digital scrapbook is an electronic book that integrates images and text obtained from letters, articles and magazines in its creation with the help of software from Android. The development of scrapbook digital learning media is designed to be interesting by inserting narratives, images and audio. Efficient learning helps educators deliver material to students in order to explore knowledge independently using media. The application of scrapbook digital media is more effective, because the preparation of the material is in accordance with the goals that have been designed by the educator. The use of media with the android operating system is more practical, accessible using smartphones, making it easier for students to repeat learning materials that have not been understood (Yulanda & Darwis, 2023).

Based on the background description that has been presented, it is necessary to develop a tool to transmit interesting and easy-to-understand message sources for students in learning, so research was carried out with the title "Development of Android-based Scrapbook Digital Media , Material on the Relationship between the Image of the State Emblem and the Sila of Pancasila for Junior High School Class 1 Fifty"

## Method

The method used by researchers is the research and development method or R&D. Research and development or R&D is a scientific method that is often used in the process of scientific disciplines to produce creations according to certain fields as well as test the effectiveness and validity of the products that have been produced (Ahyyar et al., 2020). The design procedure carried out by the researcher applies the Thiagarajan 4-D (four-D) model, which consists of 4 steps, namely:



**Picture 1.** Model 4-D (four-D)

However, researchers changed the 4-D model to 3-D, in order to save time and money in the research process. Therefore, researchers only do the development step (Ahyyar et al., 2020). For the definition stage, the researcher carried out student analysis and learning media analysis, while at the design stage, the researcher designed and processed an Android-based scrapbook to completion, and for the development stage, the researcher conducted validation tests by media experts and material experts as well

as the trial stage to students. The research was carried out on July 08 – August 08 at SMP Negeri 1 Fifty. The test subjects for this study are grade VII students of SMP Negeri 1 Fifty.

Data collection was carried out through questionnaire leaflets and questions in the form of pretest and post-test. After the data was collected, the researcher conducted data analysis in 2 ways, namely qualitative data analysis and quantitative data analysis. Validation data and practicality were obtained through the distribution of questionnaires using a Likert scale. Furthermore, the results of validity and practicality data are analyzed using Aiken's V formula, namely: (Wandini et al., 2020)

$$V = \frac{\sum s}{n(c - 1)}$$

Effectiveness data was obtained through pretest and post-test. After that, the results of the effectiveness data were analyzed with the t-paired test formula, namely:

$$t_{count} = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{N \sum D^2 - (\sum D)^2}{N - 1}}}$$

Furthermore, to see a significant improvement, a Normality Gain test was also carried out to calculate the difference in learning outcomes before and after using Android-based scrapbooks .

For the results of the calculation of the feasibility and practicality data, it will be classified into the criteria of feasibility and practicality level as follows:

**Tabel 1.** Eligibility Criteria for Android-Based Scrapbooks

Interval	Criterion
0,76-1	Very Worth it
0,51-0,75	Worthy
0,26-0,5	Less Eligible
<0,25	Not feasible

(Sinaga & Rakhmawati, 2022)

**Table 2.** Practicality Criteria Of Android-Based Scrapbook

Interval	Criterion
0,76-1	Very Practical
0,51-0,75	Practical
0,26-0,5	Less Practical
<0,25	Impractical

(Rahmalia & Suryana, 2021)

Meanwhile, the results of the calculation of the t-paired test for the pre-test and post-test will be classified into the following criteria:

**Table 3.** Criteria N-Gain

t-paired Test Value	Criterion
$t_{count} > t_{table}$	Highly Effective
$t_{count} < t_{table}$	Ineffective

(Rahmalia & Suryana, 2021).

## Research Result

### Define

The initial stage analyzed educators and media used in PPKn learning material on the Relationship between the Image of the State Emblem and the Sila of Pancasila in grade VII through structured interviews conducted with homeroom teachers of grade VII SMP Negeri 1 Fifty. Based on the results of the learning interview of the material on the relationship between the image of the State Emblem and the Pancasila Precepts, information was obtained that educators were only limited to using simple images and powerpoint. Second, conduct a needs analysis of students. The research was conducted for grade II elementary school students who are generally 7-8 years old, including the concrete operational stage. Third, analyze the content of the book that is implemented. Students use thematic books as guidelines in learning where there is material content in the book that is less specific, such as not including the meaning of each part of the Garuda Bird's body and the meaning contained in each symbol of Pancasila. PPKn learning aims to instill the values of Pancasila as a pillar of the Indonesia nation and the 1945 Constitution to become the legal norm of the Indonesia people in order to become a national identity with character.

### Design

The second stage of media design is carried out after obtaining the results of the analysis activities. In this phase, the researcher designs material design, media design and prepares validation sheet instruments and questionnaires. Media development utilizes technological developments as an alternative learning media needed by students to understand material from home and at school, namely android-based scrapbook digital media. The series of materials that will be contained in the digital scrapbook begins with the determination of sub-material. Then the material is compiled based on the basic competencies that have been available in the class II book so that it is in accordance with learning. There is also the content of the material that has been determined in the media as follows:

**Table 4.** Basic Competencies and Indicators

Theme	5 – My Experience
Subtopic	1 – My experience at home
Basic Competencies	3.1 Identify the relationship between the symbols and precepts of Pancasila in the state emblem "Garuda Pancasila".
	4.1 Explaining the relationship of the image on the state emblem with the precepts Pancasila.
Indicator	3.1.1 Mentioning the symbols and meanings of the Pancasila precepts.
	3.1.2 Explaining the symbols and meanings of the precepts of

Pancasila.  
 4.1.1 Concluding examples of behavior at home that reflect the values of Pancasila precepts.



Design



Original media

**Figure 1.** Page 1 Design

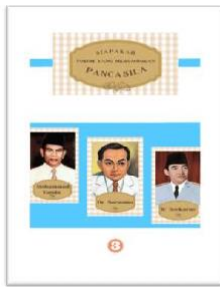


Design



Original Media

**Figure 2.** Page 2 Design



Design



Original Media

**Figure 3.** Page 3 Design



Design



Original Media

**Figure 4.** Page 4 Design



Design



Original Media

**Figure 5.** Page 5 Design

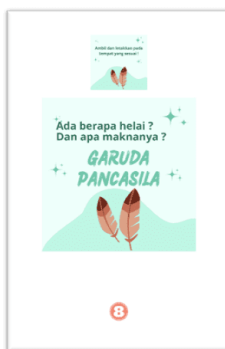


Design

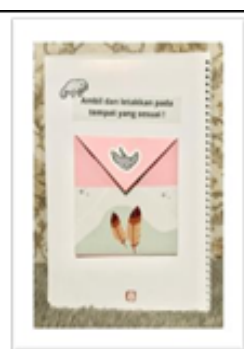


Original Media

**Figure 6.** Page 6 Design



Design



Original Media

**Figure 7.** Page 7 Design



Design



Original Media

**Figure 8.** Page 8 Design



Design



Original Media

**Figure 9.** Page 9 Design



Design



Original Media

**Figure 10.** Page 10 Design

## Develop

Book validation is assessed by two experts, namely material experts and media experts. The implementation of validation by material experts is one-time, with several improvements to the scrapbook, namely each definition on the material should be made into a box to make it more interesting, given an explanation on each animation image. The following is the validation data on the scrapbook by material experts through the table below.

**Table 5.** Material Expert Validation Data

No	Indicator	Value Scale					s (r- lo)
		1	2	3	4	5	
1	The material is in accordance with the kd and ki presented					√	4
2	The material is presented in accordance with the learning objectives in grade VII					√	4
3	The material is presented briefly and easily understood by grade VII students				√		3
4	The language used is easy to understand by grade VII students				√		3
5	Materials to foster interest in learning for grade VII students					√	4
6	The material is related to the cognitive improvement of grade VII students				√		3
7	Contains examples and practice questions for grade VII students					√	4
8	Animated images give interest to grade VII students					√	4
9	Sample questions have fulfilled the material taught				√		3
10	The discussion on the questions already contains the students'					√	4

	understanding							
11	Practice questions already contain students' cognitive elements					√		4
12	The use of the Pancasila symbol is very clear and gives attraction to students					√		4
13	The use of sentences is in accordance with the rules of the Indonesian Language				√			3
$\sum s$								47
$V$								0,903

Then the scrapbook is validated by media. Media validation was carried out by two validators as UINSU lecturers. This validation was also carried out twice, so that in the first and second validations the validation results could not be obtained because there were suggestions and inputs from validators. The following are the results of the validation of the learning media after the revision as follows.

**Table 6.** Media Expert Validation Data

No	Value ScaleIndicator	Value Scale					s (r- l <sub>0</sub> )
		1	2	3	4	5	
1	The size of the media is in accordance with the size of the capacity of the android					√	4
2	The coloring elements and layout design on the cover display an attractive impression					√	4
3	The use of image icon layouts is consistent and good				√		3
4	Displays color variation as well as good contrast					√	4
5	The typeface used is easy to read and fosters Appeal				√		3
6	Doesn't use a lot of typeface variations					√	4
7	Animated images provide clarity to the content of scrapbook material				√		3
8	Ease of use					√	4
9	The font size used is in accordance with the standard scrapbook				√		3
$\sum s$							32
$V$							0,8

After validation is carried out and declared feasible, the scrapbook can be implemented in the field to see the practicality and effectiveness of the scrapbook in the

classroom. In this implementation, initially the researcher provided products to students and teachers. Then give a questionnaire to get students and teachers responses to the scrapbook. The following is a table of data on student and teacher responses to android-based scrapbook media.

**Table 7.** Student and Teacher Response Data

NO	Aspects	Shoes					
		Student Response	s(r-l <sub>0</sub> )	n(c-1)	Teacher's Response	s(r-l <sub>0</sub> )	n(c-1)
1	Facilities	558	438	480	19	15	16
2	Motivation	714	564	600	24	19	20
3	Highlights	718	568	600	22	17	20
4	Benefits	706	556	600	22	17	20
		n = 32	∑ = 2126	∑ = 1140	n = 1	∑ = 68	∑ = 76
		V-Aiken	0,932		V-Aiken	0,894	

Furthermore, the researcher carried out the learning process using an android-based scrapbook in grade VII of SMP Negeri 1 Lima Puluh. Then the researcher gave a pretest and posttest to 32 students in class VII-A. However, before being given questions by researchers, it is necessary to conduct a feasibility test of question items to see the validity, reliability, discriminating power and level of difficulty in the questions. The following is a table of the results of the analysis of validity, reliability, differentiation and difficulty level.

**Tabel 8.** Hasil Uji Kelayakan Butir Soal

Question Items	r calculate	Criterion	r <sub>11</sub>	Criterion	DP	Criterion	TK	Criterion
1	0,635	Valid	0,686	Tall	2,8	Very good	0,4	Keep
2	0,443				3	Very good	0,4	Keep
3	0,531				1,4	Very good	0,3	Keep
4	0,768				3,6	Very good	0,5	Keep
5	0,509				0,6	Good	0,4	Keep
6	0,513				0,67	Good	0,5	Keep

The table above shows that the six question items have met the question feasibility test, so that the questions are suitable to be used to be given to students in the form of pretest and posttest questions. Through a product trial conducted by a researcher with a total of 32 students, a t-paired test calculation was carried out on the pretest and posttest scores to see the level of student effectiveness. The following are the results of the analysis of the calculation of the t-paired test through the table below.

**Table 9.** t-Paired Test Analysis Results

	Average	Average Difference (D)	Standard Deviasi	t count	t table
Pretest	62,343	13,281	12,155	6,1807	2,039

Posttest	72,625				
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## Discussion

In designing the creation of an android-based scrapbook, here the researcher takes several steps according to a predetermined method model. The first step is the define stage. At this stage, the researcher made observations to get some of the main problems that occurred in the school so that the researcher got the idea to design an android-based scrapbook. The second step is the design stage. Here the researcher immediately carries out the design stage for making a good scrapbook, therefore the researcher will start by collecting several relevant sources both from books and journals, then making a draft of the scrapbook content, visualizing the design and doing the process of making an android-based scrapbook. The third step is the develop stage. This stage is the final step in the research process. Researchers will validate this book and implement it directly in the field, so that later they will get the data needed by researchers to be analyzed by statistical calculations.

### Define

The initial stage analyzed educators and media used in PPKn learning material on the Relationship between the Image of the State Emblem and the Sila of Pancasila in grade VII through structured interviews conducted with homeroom teachers of grade VII SMP Negeri 1 Fifty. Based on the results of the learning interview of the material on the relationship between the image of the State Emblem and the Pancasila Precepts, information was obtained that educators were only limited to using simple images and powerpoint. This kind of learning makes students less focused on the material provided because the media seems monotonous, therefore the material delivered feels difficult for students. In addition, the researcher conducted a literature study and found data from the Curriculum et al., (2021) research which had a similar problem that only 33.3% of students completed learning the material on the relationship between symbols and the precepts of Pancasila. This is because students are only presented with theory and the limited use of media causes students to be bored with PPKn learning which is an understanding lesson.

Second, conduct a needs analysis of students. The research was conducted for grade II elementary school students who are generally 7-8 years old, including the concrete operational stage. The set of individuals who have similarities in the year of birth, age, and experience of similar events in the individual has an influence on the growth process (Afifah et al., 2021). This is because students at the concrete operational stage begin to think by processing information around them through the help of real objects as learning media.

Third, analyze the content of the book that is implemented. Students use thematic books as guidelines in learning where there is material content in the book that is less specific, such as not including the meaning of each part of the Garuda Bird's body and the meaning contained in each symbol of Pancasila. PPKn learning aims to instill the values of Pancasila as a pillar of the Indonesia nation and the 1945 Constitution to become the legal norm of the Indonesia people in order to become a national identity with character. In line with the opinion of Hasyim & Andreina, (2019) stated that the meaning of the five precepts in Pancasila is a unit so that it cannot be separated and

each precept describes the state of unity that the Indonesia nation has. This is because thematic books are integrated with other lesson contents, thus students need books as learning companions. In addition to the main book used as an explanation in learning, the books used are included in the companion book (Hasyim & Andreina, 2019). Therefore, students in grade II need learning media that makes it easier to understand the material provided by educators.

### **Design**

The second stage of media design is carried out after obtaining the results of the analysis activities. In this phase, the researcher designs material design, media design and prepares validation sheet instruments and questionnaires. Media development utilizes technological developments as an alternative learning media needed by students to understand material from home and at school, namely android-based scrapbook digital media. The series of materials that will be contained in the digital scrapbook begins with the determination of sub-material. Then the material is compiled based on the basic competencies that have been available in the class II book so that it is in accordance with learning.

The digital media design stage of the scrapbook is prepared using flowcharts and storyboards. The flowchart design aims to prepare instructions for each role contained in the digital scrapbook media. The following are the stages of the flow of commands in the digital learning media scrapbook, namely: menus, main menus, instructions for use, core competencies and basic competencies, materials in the form of narratives, images, sounds and videos that contain the meaning of the garuda bird symbol, the meaning of each value of the Pancasila precepts and examples of implementation in daily activities, quizzes in the media totaling 10 questions. The process of designing and making storyboards makes it easier to produce digital learning media scrapbooks.

After carrying out the entire stage of designing the material program used in the media and media design, then the evaluation stage assisted by the supervisor to provide suggestions to be a reference in improving the material design and media design to produce an optimal product.

Furthermore, the development is produced from a collection of components in the analysis phase and components in the design phase then realized to produce android-based scrapbook digital media. A brief description of the process of preparing the display of learning media includes: 1) Media in the form of a digital book designed with Coreldraw software, Ms. Office Power Point 2016 to arrange images and materials; 2) The design is arranged in Adobe Flash software to add background music, sound effects, dubbing with .mp3 extensions and videos with .mp4 extensions to make learning media more interesting; 3) After all stages are in accordance with the flowchart and storyboard, then the media can be extended .apk so that it can be operated based on android; 4) The screen display of the digital scrapbook application on the gadget can be adjusted according to the ratio on the mobile phone screen; 5) The media can be operated offline.

### **Develop**

The develop stage is the final stage carried out by the researcher to obtain some valid and clear data to achieve the goal. Therefore, android-based scrapbooks that have reached the manufacturing process will be validated so that they are suitable for use in the field, so that scrapbooks can be assessed for their practicality and effectiveness in mathematics learning.

Through the results of the calculation on the validation data of the material carried out by the researcher, it can be seen that the value obtained is 47 so that the result of the V Aiken value obtained is 0.903. This indicates that the material presented in  $\Sigma$ s the android-based scrapbook is classified **as very worthy** of teaching to students in a class with an interval category of 0.76-1. Lena et al., (2020) said that good and quality material is worth teaching if the researcher presents the content of the material in accordance with and relevant to the competencies and learning goals to be achieved, the researcher designs the content of the material in an attractive and systematic manner that reflects the improvement of learning ability in students and the researcher presents the content of the material that helps students to understand learning in the classroom.

Then the scrapbook is validated by media. Media validation was carried out by two validators as UINSU lecturers. Based on the results of the calculations carried out by the researcher, it appears that the value obtained is 32 and the result of the V Aiken value obtained is 0.8. This illustrates that  $\Sigma$ s the android-based scrapbook media designed by the researcher is categorized **as very suitable** for use in the classroom with an interval value of 0.76-1. Through Saccharosa's research, (2016) explained that the appearance of media on products is important, because media provides meanings and impressions recorded by sensory nerves and can affect students' psychology in using the product. Therefore, it is very necessary to assess the appearance of the media so that the product can be tested properly in the field.

After validation is carried out and declared feasible, the scrapbook can be implemented in the field to see the practicality and effectiveness of the scrapbook in the classroom. In this implementation, initially the researcher provided products to students and teachers. Then give a questionnaire to get students and teachers responses to the scrapbook. The table above explains that the results of the calculation analysis conducted by the researcher show that the V value of Aiken in the student response data is 0.932 while the V value of Aiken in the data of the teacher's response to the scrapbook is 0.894. These results show that the student response data and teacher responses are included in the interval criteria of 0.76-1, so that the android-based scrapbook provides great comfort to students and teachers during the learning process in the classroom. Therefore, the scrapbook that has been made by the researcher is classified **as very practical** to use while learning is ongoing.

Through a product trial conducted by a researcher with a total of 32 students, a t-paired test calculation was carried out on the pretest and posttest scores to see the level of student effectiveness. Based on the table above, it can be seen that the results of the t-paired test for pretest and posttest data were obtained values  $t_{hitung} = 6,1807$  and values. Because it is, it has a "very effective" criterion. This indicates that android-based  $t_{tabel} = 2,039$   $t_{hitung} \geq t_{tabel}$   $6,1807 \geq 2,039$  scrapbooks are very effective in learning in the classroom. Research conducted by Tebe et al., (2019), explained that android-based scrapbooks are able to improve student learning outcomes. The improvement shows the effectiveness of scrapbooks when used in the classroom. Students who are intellectually able to work on questions that are well designed by the teacher, can increase students' motivation to learn and students' imagination in understanding the relationship between the image of the state emblem and the precepts of Pancasila will increase so that students can appreciate the learning process in the classroom.

## Conclusion

Android-based scrapbooks are explained to be very feasible to use during learning in the classroom. This can be seen from the results of V Aiken's calculation on the validation data of material experts of 0.903 and from media experts of 0.8 with an interval category of 0.76-1. So it is concluded that android-based scrapbooks are categorized as very suitable for use in learning in the classroom. Android-based scrapbooks are also very practical to use during classroom learning, because students feel comfortable and helped in the learning process. This is shown by the results of V Aiken's calculation on the student response data of 0.932 and the results of V Aiken's calculation on the teacher's response data of 0.894. Siyogiya, the scrapbook given by the researcher received a very positive response with the interval criterion of 0.76-1. Thus, android-based Scrapbooks are very practical to use by students when learning in the classroom. Based on the results of the calculation of the t-Paired test on the results of the pretest and posttest, the t-count value = 6.18 and the t-table value = 2.039, namely  $6.18 > 2.039$ , it has the "very effective" criterion. This means that this media provides effectiveness in the learning process in the classroom.

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