The Development of Pocket Book Learning Media Based on Mind Mapping, Dynamic Material Application of Indonesian Democracy in Senior High School

Sri Rahayu Pudjiastuti
Post Graduate Pancasila and Civic Education,
Intitute of Education Arrahmaniyah,
Depok, Indonesia
Email: rahayu@stkiparrahmaniyah.ic.id

Mohamad Sutisna
Post Graduate Pancasila and Civic Education,
Intitute of Education Arrahmaniyah,
Depok, Indonesia
Email: muhamadsutisna290966@gmail.com

Suparno,
Post Graduate Pancasila and Civic Education
Intitute of Education Arrahmaniyah,
Depok, Indonesia
Email: suparno11@gmail.com

Hesti Mustika Ati
Post Graduate Pancasila and Civic Education,
Intitute of Education Arrahmaniyah,
Depok, Indonesia
Email:hetimustika@yahoo.com

Abstract- The purpose of this study is to; (1) developing pocket mapping based learning media on mind mapping material on the implementation of democracy in Indonesia, (2) studying mind mapping learning media based on mind mapping, and (3) to find out the effectiveness of mind map based learning pocket media in Indonesia on subjects Civics Class XI 11th High School Depok City. This research method is research and development (R&D). The research data were obtained using interviews, questionnaires or questionnaires for teacher and student needs, questionnaire validators, teacher and student response questionnaires, as well as pretest and posttest. The research ended with conducting a pretest posttest design one group experiment. The results of this study concluded that the mapping-based pocket learning media can improve the learning outcomes of Civic Education System material at the central level of Class XI of Senior High School (SMA) Negeri11 Depok City by 38% in the medium category. Paired sample test results paired sample test with SPSS version of IBM 22, obtained Sig (2-tailed) value of 0,000. Sig (2-tailed) value of 0,000 <0.05, it was concluded that Ho was rejected and Ha was accepted, which means that there was a significant difference between the learning outcomes of Civic Education System materials at the central government level before using pocket mapping learning media based on mind mapping and using book learning media pocket based mind mapping. From these results it is known that the pocket book learning media based on mind mapping of central government system materials, feasible and effective can improve the learning outcomes of Class XI Civics in Senior High School (SMA) Negeri 11 Depok City.

Keywords: learning media, pocket book, mind mapping

I. INTRODUCTION

Based on the semester 1 report card grades for the 2017/2018 academic year PPKn Class XI SMA Negeri 11 Depok student learning outcomes are still low. This is indicated by the average value of PPKn which is still below the average value of Indonesian Language, Mathematics, Natural Sciences, Social Sciences, and other subjects. The average value of Civics is 65 with KKM 75.

Based on preliminary research through interviews on August 13, 2018, conducted with supporting teachers of Class XI PPKn subjects at SMA Negeri 11 Depok, the following problems were obtained:

1. In PKn learning students lack focus. This is indicated by the presence of several students who still do not pay attention to the teacher's explanation in the learning process.

2. Some students do not do homework given by the teacher. Students feel lazy and bored in learning broad Civics material.

3. Textbooks owned by students are also limited. Based on the data obtained, as many as 26 students out of 28 students (92.86%) only had 1 PPKn textbook as learning media. While 2 students out of 28 students (7.14%) had 2 Civics textbooks. The book is a loan book from school for students.

The lack of textbooks or reference books owned by students as supplementary learning books, cause a lack of insight into the knowledge students to have. Learning PPKn with extensive material, we need a way for students to be able to understand PPKn material easily. Therefore we need an interesting learning media, innovative, concise, easy to learn that students can use to add references, insights in understanding PPKn material independently and easily. So the researcher wants to develop a supplementary reference book for students which can later be used for student

learning so that it will help students improve their learning outcomes. The development of a mind map based book will make it easier for students to learn. The use of mind maps will make it easier for students to remember various information. Small pocketbooks will make it easier for students to learn where and whenever. An interesting presentation will also increase student interest in learning.

Based on these background reviews, the researchers develop through research development. This study is entitled Development of Learning Media for PocketBook Based on Mind Mapping Material of the Dynamics of the Implementation of Democracy in Indonesia to Improve Learning Outcomes of PPKn Class XI 11 Public High Schools in Depok.

II. THEORETICAL REVIEW

The pocketbook is one of the complementary textbooks. According to Andi Prastowo [1], complementary textbooks are books that are helpful or are in addition to the main textbooks and are used by educators and students. Teaching materials in individual learning can function as the main media in the learning process, as a tool used to compile and oversee the process of students in obtaining information, as well as supporting other individual learning media [2].

According to Rahmawati et al [3], pocketbooks have characteristics that can stimulate student learning enthusiasm, enthusiasm and show interest during the learning process. Students are more active and pay attention to the teacher's explanation so that at the end of the learning students can work on the posttest questions. The material delivered can be well received and understood if each student can build his mind to be able to process the knowledge received in all stages of learning.

The use of pocket books as learning in Civics has functions, namely: (1) attention function, pocket book media or pocket books are printed with small packaging and full color so that it can attract and attention students to concentrate on the contents of the material written therein, (2) affective function, writing material on the pocket book media and there are pictures of material explanations to increase student enjoyment in learning, (3) cognitive functions, writing material and pictures can clarify the material contained in a pocket book or pocket book to facilitate the achievement of objectives learning, (4) compensatory functions, writing material in a short and clear pocket book can help students who are weak in reading to understand the material in the text and remember it, (5) psychomotor functions, writing material in a short pocket book or pocket book and clearly can make it easier for students to memorize it, and (6) the evaluation function, pe assessment of students' ability in understanding material can be done by working on evaluation questions contained in a pocket book [4].

Supporting research contained in the international educational journal from Aksaray University, Turkey conducted by Özgüll Keles in 2012 with the title Elementary Teachers' Views on Mind Mapping. The study aims to determine the views of Civics teachers regarding the use of mind mapping. This research was conducted by interviewing 24 elementary school teachers who were analyzed using qualitative research methods. The results of the study that the use of mind mapping helps improve learning, learning planning, and evaluation activities and make learning interesting.[5]

Also strengthened by research conducted by Ethics Juniata and Tuti Widianti in 2015 with the title Development of Mind Mapping-Based Pocket Books and Multiple Intelligences on Mushroom Material in *Senior High School (*SMA) Negeri 1 Slawi [6]. This research was conducted by the Research and Development research method. The subjects in this study were students of Class X Science in *Senior High School (*SMA) Negeri 1 Slawi. The development of a pocketbook as a support to students 'handbooks overcome the difficulties of students studying mushrooms and can develop students' multiple intelligences. From the results of research conducted, it was found that the development of Mind Mapping Based Pocket Books and Mushroom Material Multiple Intelligences was able to develop multiple intelligences. Other research that supports is research conducted by Fahtria Yuliani and Lina Herlina [7] entitled Development of a Pocket Book on Global Warming Materials for Middle Schools. This study aims to determine the pocketbook of global warming material which is suitable to be used as teaching material in junior high schools, as well as to determine the feasibility and effectiveness of the pocketbook on global warming material developed.
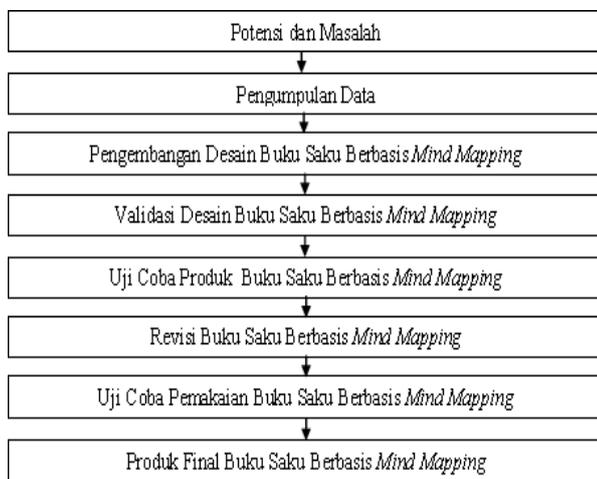
The study was conducted using Sugiyono's research development stage. Research subjects in the product trial phase used two classes VII E of 36 students and class VII F of 34 students in SMP Negeri 1 Ketanggungan. The results of the assessment of media experts and material experts show that the booklet on global warming is very feasible with a feasibility percentage of 96.4% and 93.3%. The percentage of student responses on product trials reached> 50%. Likewise, the percentage of teacher responses reached> 50%. Based on the results of the study, a pocketbook on global warming material that fits the needs of students and teachers is a colorful and picture pocketbook, and contains lots of practice questions and supporting information. In addition, the results of the study concluded that the booklet of global warming material developed was feasible and effectively used as teaching material in the learning. Research conducted by Pudjiastuti and Rusmayadi concluded that the application of the Mind Maping model with Game Scattergories could improve creativity and learning outcomes of the concept of Civics on National Legislation in Class VIII E at SMP Negeri 1 Leuwigoong Garut. The results of observations on the application of the Mind Mapping Model with the Scattergories Game were started in the first cycle by obtaining an average score of 69.22 or it could be said to have a sufficiently high quality category and could not encourage the variable Student Creativity and Learning Outcomes of National Legislative Materials to achieve completeness, in the second cycle obtained a score of 74.18, although it has increased but in

this cycle the two variables have not experienced complete completeness in all students, and in the third cycle the application of the Mind Mapping Model with Scattergories Games obtained a score of 77.90 points and succeeded in increasing the Student Creativity variable and Learning Outcomes of National Legislative Materials achieve completeness. [8]

III. RESEARCH METHODS

This type of research is research and development (R&D). Research or R&D development is one type of non-experimental quantitative research. Development research strategies according to Sugiyono [9]: namely as follows: (1) potential and problems; (2) data collection; (3) product design; (4) design validation; (5) product revision I; (6) product trials; (7) product revision II; (8) trial use; (9) product revisions; and (10) mass production.

However, in research conducted by researchers only reached the stage of trial use because the population and scope used in the study were limited, namely 1 class with 28 students. In addition, due to limited research time. The study was only carried out until the trial phase of usage because at this stage the researcher had gotten the results of the hypothesis to test the effectiveness of the media developed by the researcher. After the product is tested on students, the results obtained from the media are developed in the form of mind mapping based handbooks. The steps for developing mind mapping based handbooks are as follows:

Potensi dan Masalah
Pengumpulan Data
Pengembangan Desain Buku Saku Berbasis *Mind Mapping*
Validasi Desain Buku Saku Berbasis *Mind Mapping*
Uji Coba Produk Buku Saku Berbasis *Mind Mapping*
Revisi Buku Saku Berbasis *Mind Mapping*
Uji Coba Pemakaian Buku Saku Berbasis *Mind Mapping*
Produk Final Buku Saku Berbasis *Mind Mapping*

Data collection techniques used in this study are test techniques and non-test techniques consisting of interviews and questionnaires. Tests are given to students individually to find out the cognitive abilities of students in learning Civics in the application of democracy in Indonesia through pocket learning media based on mind mapping Interviews with teachers related to problems in high school, as well as plans for making mind book learning media. In addition it is done by conducting a literature review of various existing literature. Data collection is also carried out an analysis of the needs of teachers and students so that the media developed are appropriate to the needs of teachers and students. Analysis of teacher and student needs is done

using a questionnaire or questionnaire filled out by the teacher and students.

IV. DISCUSSION

1. Development of MindMapping Based Pocket Learning Media

Research and development procedures were adapted from the R&D research model of Sugiyono [11]. Research and development models conducted by researchers are: 1) potential and problems; 2) data collection; 3) product design; 4) design validation; 5) product trials; 6) product revisions; and 7) trial use.

Sugiyono's research model was also carried out by Juniati and Widianti [12] in Research and Development research conducted using research procedures from the identification of potential and problems, data collection, pocket book product design, product validation, pocket book revision, small-scale trials , pocket book revisions, large-scale trials, pocket book revisions, and final products.

The development of mind mapping learning media based on mind mapping begins with the discovery of potentials and problems made by researchers through the identification of problems in Depok 11 Public High School, by conducting open interviews with the PKn Class XI teachers in *Senior High School (*SMA) Negeri 11 Depok. From the interview results it can be seen that there is still a lack of learning media for class XI Civics in *Senior High School (*SMA) Negeri 11 Depok. In addition, based on interviews with students, students only have 1 Civics textbook. The book is a BSE book that the school lends to students. Teachers and students also think that learning will be more interesting with the presence of interesting and innovative learning media. This is in line with the opinion of Nana Sudjana and Ahmad Rivai [13] that the benefits of learning media is that teaching will attract more students' attention so that it can foster motivation to learn. The density of the material dynamics of the application of democracy in Indonesia on Civics subjects causes students to not understand the material, so that student learning outcomes are less than optimal. Researchers also conducted interviews in general with 28 students of class XI. From the interview, it was found out that as many as 26 students out of 28 students only had 1 Civics textbook namely the BSE book which was used as a learning medium. The book is a loan book from school for students. From these problems, the researcher has an idea to develop an interesting and innovative learning media in the form of mind mapping based handbooks. According to Kemp and Dayton (1985) in Azhar Arsyad [14], pocket books are a type of print media. The results of research from Ozgul Keles [15] show that the use of mind mapping helps teachers deliver material, plan and evaluate learning and make the learning process more entertaining. The existence of a mind mapping based pocket book will add to the student book references that can be used to complement existing books. Dense material, easier to learn with mind mapping.

Because the material presented with mind mapping is more concise and easy to learn. This is in line with Tony Buzan's opinion [16] that mind mapping makes learning faster and more efficient. Basically, the benefits of media are to clarify the presentation of messages and information so that they can facilitate and improve the process and learning outcomes [17]. The application of the Mind Maping model can increase creativity and learning outcomes [18]. After knowing the problems faced by students and the potential that exists, the researchers conducted interviews with the teacher again in more depth to find out what Basic Competencies would be taken as mind mapping handbook material. Because good media is chosen in accordance with the objectives to be achieved by Kustandi and Sutjipto [19]. Based on interviews with teachers, it is suggested that the material on the dynamics of applying democracy in Indonesia is used as material in a mind mapping based book because the material is the most extensive and most difficult material for students in accordance with the results of the needs questionnaire filled out by the PKN class XI influential teacher. *Senior High School* (SMA) 11 Depok. In addition to analyzing teacher needs, researchers also distributed questionnaires or questionnaires for student needs to 28 students of class XI of *Senior High School* (SMA) Negeri 11 Depok. Based on the needs analysis conducted on the 11th grade teachers of *Senior High School* (SMA) Negeri 11 Depok, it was found that students really need to have good mastery of the material dynamics of implementing democracy in Indonesia.

According to the Class XI PPKn teacher at *Senior High School* (SMA) Negeri 11 Depok, the material on the dynamics of implementing democracy in Indonesia is broad. The availability of Civics learning media material on the dynamics of implementing democracy in Indonesia is adequate, the intention is that there are Civics books namely BSE. But according to the teacher, students still need an innovative and interesting book as a reference or complementary book to increase students' knowledge on the dynamics of applying democracy in Indonesia. The teacher strongly agrees if the researcher develops a pocket-book learning media based on mind mapping material on the dynamics of the application of democracy in Indonesia by adjusting the curriculum in XI grade high school. The teacher also believes that the mind mapping learning pocket media will later improve student learning outcomes. As stated by Sudjana and Ahmad [20] that learning media can enhance student learning processes in teaching which in turn are expected to enhance the learning outcomes achieved by students. From the needs analysis conducted to students, as many as 19 students out of 28 students still had difficulty understanding the material dynamics of implementing democracy in Indonesia. A total of 19 students also argued that the availability of instructional media in the material dynamics of applying democracy in Indonesia was incomplete. A total of 14 students expressed strongly agree, and 14 students agreed if there were additional reference books in the form of mind mapping based handbooks.

After discovering the potential and problems, the researchers conducted a literature study and collected material on the dynamics of applying democracy in Indonesia from several BSE books, and Indonesian Wikipedia. The researcher designed a mind mapping design based on mind mapping, starting from the shape, size, introduction, contents, and closing. Researchers designed their own pocket book layout using Microsoft Word 2007. For the front cover, back cover, mind mapping design, and illustration or conversation design, the researcher was assisted by Firdaus in making it using Photoshop CS 6 and Corel Draw X12.

The research instrument used in the development of mind mapping based handbook research is a matter of evaluation for the pretest and posttest, the validator questionnaire of material and media validators, and the teacher and student response questionnaire. The researcher first tested the validity and reliability of the pretest and posttest evaluation questions. The researcher did not test the validity of the eligibility questionnaire because the researcher used a textbook assessment sheet published by the 2014 National Education Standards Agency (http: // bsnpindonesia.org/g/id) which was assessed as consisting of aspects of content worthiness, linguistics, presentation, and graphics. The teacher and student response questionnaire used was also adapted from BSNP [21] regarding the textbook assessment criteria. However, the criteria of the BSNP are only a guideline for researchers who then researchers develop their own questionnaires in accordance with the needs of researchers.

To find out the feasibility of the media, the next step taken is the validation of the material and the media. Material validation was carried out by lecturers of the PKN STKIP Arrahmaniyah Masters Program. Material validation is related to the content, linguistic, and presentation aspects of a mind mapping based book developed by researchers by filling in questionnaires or questionnaires on a scale of 1-4. Alternative answers to the questionnaire are very good, good, not good, and not very good. The questionnaire for material validator has 44 rating descriptors. In addition to conducting a feasibility assessment, the material validator also provided comments and suggestions for improving mind mapping learning media.

Media validation was conducted by expert instructor learning media lecturers PPKn STKIP Arrahmaniyah master program. Media validation was carried out in connection with the presentation and graphic aspects of the mind mapping based book developed by researchers by filling in questionnaires or questionnaires on a scale of 1-4. Alternative answers to the questionnaire are very good, good, not good, and not very good. The questionnaire for media validators has 48 rating descriptors. In addition to conducting a feasibility assessment, the media validator also provides comments and suggestions for improving mind mapping learning media based on the pocket book. Material and media validators provide comments and suggestions for media

improvement. In almost the same time, researchers conducted product trials on 6th grade students of *Senior High School (*SMA) Negeri 6 Depok. The reason for the selection of the high school is because of the similarity of the area between Depok 11 Public High School and Depok 6 Public High School in the adjacent Sub-district area, between Beji and Limo Sub-districts. Another reason is because of the similarity of student characteristics.

Product trials aim to test the use of mind mapping learning media products based on mind mapping when used in learning. In addition, the product trial is also used to determine student responses to the media developed. At the product trial stage, the researcher conducted the research, through experiments with the One Group Pretest Postest Design technique. Product trials are conducted by giving pretest questions to students first, then learning is done using pocket mapping based learning media, and ending with posttests for students. After product trials were conducted, 6 students were given questionnaires for student responses to the use of mind mapping based pocket media.

After the data from the validator and student responses are collected, the researcher makes revisions according to the suggestions. Researchers also printed a mind-based pocket mapping book that had been revised as many as 28 books to be tested using XI grade students of *Senior High School (*SMA) Negeri 11 Depok. The reason for choosing Depok 11 Public High School students is because they are based on the potential and background of the learning problems discovered by researchers. The number of research subjects was 28 students. Consisting of 13 male students and 15 female students. Students are very happy with the mind book media based on mind mapping during learning. With the technical use of learning media developed, students can play an active role during learning.

In this trial use aims to determine the effectiveness of mind mapping learning media based on mind mapping when used in learning to answer research hypotheses. At this stage, the trial of media usage was carried out by the PPKn Class XI teacher at *Senior High School (*SMA) Negeri 11 Depok, through experiments with the One Group Pretest Postest Design technique. The trial run on August 27, 2018 was 2 meetings with the same day and learning, but using different media. In the first learning using handout learning media and pretest, while the second learning using mind mapping based learning media developed by researchers. The evaluation results of the learning activities are used as the results of the posttest.

At the end of the learning process, students and teachers are given questionnaires or questionnaires in response to mind mapping learning media based on mind mapping adapted from the textbook criteria by BSNP and developed by researchers as needed. A 1-4 scale media response questionnaire, in the category of strongly agree, agree, disagree, and strongly disagree. From the results of the teacher's response, an average percentage of 98.15% was obtained with the "very feasible" category. The

statement of the response was adapted from the BSNP textbook criteria [22] with changes and development as needed.

PPKn Teachers of Class XI Depok 11 Public High School stated that pocket books made were in accordance with the material and learning objectives as well as interesting books and motivated students to be more fond of reading the material. From the responses of students who have been processed, it is known that the mind mapping learning media based on mind mapping is categorized as "very feasible" with a percentage of 95%. Student comments on mind mapping learning pocket media are interesting and happy with the mind mapping learning pocket media.

The main purpose of developing mind mapping media based on mind mapping is to improve learning outcomes of class XI of *Senior High School (*SMA) Negeri 11 Depok. Class XI means that all class XI students of *Senior High School (*SMA) Negeri 11 Depok. The researcher measures the increase in learning outcomes by comparing the results of the pretest and posttest learning from students.

2. Feasibility of Mind Mapping Based Pocket Book

Learning Media The feasibility of pocket book learning media is known after validity testing by the material validator and the media validator. It also tests the response of teachers and students to the media developed. Scale 1-4 data collection instruments. For the feasibility questionnaire with very good, good, not good, and very bad information As for the teacher and student responses with the information strongly agree, agree, disagree, and strongly disagree. a. Material Validation The material expert is a lecturer at PPKn STKIP Arrahmaniyah. Material validation is carried out to determine the appropriateness of content, linguistics, and presentation. The results of the assessment of the material validator can be seen in the attachment to the material validation. In terms of the 44 descriptors, the average percentage was 93.18% with a very decent category. The following explanation. 1) Eligibility The contents of a mind mapping based pocketbook gets an average percentage of 91.67% with a very decent category from 15 descriptors presented in a questionnaire or questionnaire. A total of 10 descriptors received very good grades, and 5 descriptors received good grades. Based on the evaluation of the material validator, the completeness of the material in accordance with the indicators was given a score of 3 with good information because there were no institutions of the Supreme Audit Agency (BPK) included in the mind mapping of Indonesian state institutions. However, the material of the Supreme Audit Agency (BPK) is already in this mind mapping based pocket book. From the validator's suggestion, the researcher changed the mind mapping by adding the Supreme Audit Agency (BPK) in the mind mapping of the Indonesian state agency. Assessment of the material validator that the material presented is clear, systematic, according to the level of student development, and in accordance with the development of science. The results in the study of Nurul

Laili Rahmawati et al. Showed that the assessment on the content aspect of the developed pocket book was very good [23]. In this study the assessment of the expert 1 was 91.7% and the assessment of the expert 2 was 100%. 2) The validity of the language is assessed from the 14 descriptors in the questionnaire. A total of 10 descriptors received very good grades, and 4 descriptors were rated as good, so the average percentage was 92.31% with a very decent category. The material presented in accordance with the level of intellectual development of students was given a score of 4 with very good information, while conformity with the level of emotional social development of students was given a score of 3 with good information. The flow of thought in the material, the accuracy of grammar according to the rules of the Indonesian language, students' understanding of the material and mind mapping got a score of 4 with very good information. While linkages and integrity between sub-chapters, material and sentences were given a score of 3 by the validator in both categories.

The feasibility of the presentation presented from 15 descriptors is also categorized as very feasible with an average percentage of 95.31%. Of the 13 descriptors on the presentation aspect, based on the evaluation of the material validator, 12 descriptors were rated very good and 3 descriptors were rated as good. Mind mapping based pocket learning media is in accordance with the dynamics of applying democracy in Indonesia and can increase students' knowledge of the material. This is in accordance with the assessment of the validator by giving a score of 4 with a very good category. Research conducted by Nurul Laili Rahmawati et al. [24] also showed that the assessment results on the presentation aspects by experts 1 were 75%. The assessment conducted by expert 2 was 91.7% with a very good category. While the results of the research that the researchers got were also strengthened from the results of research conducted by Fahtria Yuliani and Lina Herlina [25] that the results of the material expert assessment showed that the pocket book developed was very feasible with a feasibility percentage of 93.3%.

a. Media Validation

Media expert is STKIP Arrahmaniyah's instructor learning media expert. Material validation is done to determine the feasibility of the presentation, and graphics. The results of the assessment of the media validator can be seen in the attachment to media validation. In terms of the 48 descriptors, they get an average percentage of 91.67% with a very decent category.

1) The feasibility of the presentation based on the assessment of the media validator gets an average percentage of 93.75% with a very decent category. Of the 16 categories presented, as many as 12 descriptors received a score of 4, which is very good. A total of 4 descriptors received a score of 3 with good information. The material presented is logical, balanced, coherent, appropriate, appropriate, and can increase knowledge of the dynamics of applying democracy in Indonesia to students with a score of 4 which is very good. Mind mapping can also increase

student interest in learning and are actively involved in learning. Completeness of the presentation such as introduction, table of contents, and bibliography is already very good. However, the completeness of the presentation of the content to recognize the character is given a score of 3 with good information.

2) The feasibility of graphics is assessed from 32 descriptors. Of the 32 descriptors, 19 received a score of 4 with very good information. While 13 descriptors got a score of 3 with good information. The size of the book is in accordance with the size of a pocket book in general and is in accordance with the contents of the book content with a score of 4. The size of the letters are proportional to the size of the book and do not use a combination of letters that are too many values very well by the validator. Likewise with illustrations in books, it can illustrate teaching material and can attract students' attention to learn. In general, the layout of the book is very decent by getting a score of 4 as many as 6 descriptors and a score of 3 as much as 5 descriptors.

Of the 6 descriptors, only 1 was rated as good, 5 other descriptors received very good scores with a score of 4. In general, the feasibility of graphics got an average percentage of 90.63% with a very good category. This is also in accordance with the research of Nurul Laili Rahmawati et al. [26] which scored 75% by expert 1, and expert 2 by 80% in the good category. In the second validation conducted by Nurul Laili Rahmawati et al, an assessment of pocket book validation was obtained with very good criteria, so that the pocket book was considered to be suitable for use as teaching material.

b. Teacher's response

After testing the use of mind mapping learning media based on mind mapping by the teacher, the researcher then gives a questionnaire or questionnaire to the teacher's response to the developed media. In the questionnaire there are 27 statements. As many as 2 statements, the teacher has agreed if the material is in accordance with the level of thinking of students in class XI of high school and the pocket book can be studied by students themselves.

While the 25 other statements the teacher responded with strongly agreed by giving a score of 4 on the statement. Overall, from 27 statements provided by researchers, mind mapping learning media based on mind mapping got a total score of 106. After calculating the percentage, the average percentage of mind mapping learning media based on mind mapping gets 98.15% with a very decent category. The research by Nurul Laili Rahmawati et al. [27] in the second validation also showed a very good teacher response to the pocket book with a percentage of 88.5%. This is reinforced from Juniati and Widianti's research [28] that the results of the teacher's responses to the use of mind mapping based handbooks developed were on average 95.65% with very good criteria.

c. Student Response

Students who were treated using a mind mapping learning pocket book media from product trials and usage

trials were given a response to a mind mapping learning pocket media. There are 19 statements in the questionnaire. The statement that mind mapping based handbooks can improve understanding of the dynamics of applying democracy in Indonesia gets a percentage of 100%, which means that all students in product trials respond strongly agree. Mind mapping was considered to be very interesting and easily understood by students with a score of 4 out of all product trial students. From the responses of students who tested the product, they got an average percentage of 95% with a very decent category.

From the responses of students who were tested using the average percentage of 95% with a very decent category. The questionnaire given to 28 students using the same test questionnaire given to 6 students testing the product. Mind mapping based books are in accordance with the learning delivered by the teacher, clearly getting a score of 4 by 28 students, so that it gets a percentage of 100%. The results of students' responses to the use of mind mapping based books developed in the Juniati and Widianti research obtained an average of 92.25% with very good criteria [29].

3. Effectiveness of Mind Mapping Based Pocket Learning Media

After testing the use of mind mapping based learning pocket media to 28 students of class XI of *Senior High School (*SMA) Negeri 11 Depok, researchers obtained pretest and posttest data results for normality, N-gain, homogeneity, and t-test tests to answer the research hypotheses. From the test of normality, the results show that the results of the pretest and posttest are normally distributed. The pretest obtained Liliefors (Shapiro-Wilk) output with the SPSS Sig 0.846 program. Because 0.846> 0.05, the data is declared normal distribution. Likewise with the posttest value, after the normality test with SPSS obtained Sig 0.117 output. Because 0.117> 0.05, the posttest value is normally distributed.The next step is to calculate the N-gain to find out whether the pretest and posttest values have increased low, medium, or high based on the criteria for improving learning outcomes. From the data processing, the results show that an increase in learning outcomes or N-gain test of 0.38 with the medium category. The research by Nurul Laili Rahamawti et al also showed that the N- gain in class VIII A was 0.404 in the medium category, and in class VIII C was 0.424 in the moderate category [30].

Furthermore, researchers test the research hypothesis, whether the hypothesis can be accepted or not using the t-test with the help of the SPSS program. However, before the t-test was conducted, the researcher conducted a homogeneity test as a condition for the t- test. From the homogeneity test results, the results show that the homogeneous pretest and posttest data values are indicated by the Sig output value of 0.360. The data is said to be homogeneous if Sig> 0.05 = 0.360> 0.05. The homogeneity calculation uses SPSS program with a significance level = 0.05.

The results of research conducted by Sulistyani Nurul Hidayati Dyah et al [31] showed that there were significant differences between the use of pocket books or pocket books and without pocket books or pocket books on student learning outcomes. These results were also obtained by researchers in research that has been conducted. After knowing that the data is homogeneous, the researcher can do the hypothesis test using t-test. In the paired sample test output with SPSS version 22, a Sig (2-tailed) value of 0,000 was obtained. Sig (2-tailed) value of 0,000 <0.05, then according to the basis of decision making in the paired sample test it can be concluded that Ho is rejected and Ha is accepted, which means there is a significant difference between the learning outcomes of PPKn material on the dynamics of applying democracy in Indonesia before using mind mapping learning pocket based media and after using mind mapping learning pocket media. From these results it is known that the pocket book learning media based on mind mapping material on the dynamics of the application of democracy in Indonesia, is feasible and effective to improve the learning outcomes of Class XI PPKn *Senior High School* (SMA) 11 Depok.

a. Implications of Research Results
1) Theoretical Implications

With the mind mapping based pocket learning media, it can be seen the development of mind mapping based pocket media. In addition, it is known that the feasibility of pocket mapping learning media based on mind mapping, and the effectiveness of pocket mapping learning media based on mind mapping.

2) Practical Implications

The existence of mind mapping learning pocket based media can be used by teachers as an additional reference in learning PPKn class XI the dynamics of applying democracy in Indonesia. Students can also study the material in this mind mapping handbook together or alone. Students can study with the teacher or independently. Students' understanding of the material also increases marked by student learning outcomes that increase.

3) Pedagogical Implications

Mind mapping based pocket learning media can improve student learning outcomes, so that it can improve the quality of school education and can help in improving school performance. In addition, mind mapping based handbooks can add references in learning PPKn material on the dynamics of applying democracy in Indonesia.

V. CONCLUSION

1. Mind mapping based learning media can improve PKn learning outcomes in the dynamics of applying democracy in Indonesia by 38% in the medium category.

2. The feasibility assessment by the material validator obtained an average percentage of 93.18% which is included in the very feasible category. The feasibility assessment by the media validator obtained an average percentage of 91.67% which was included in the very feasible category. 3. Paired sample test results paired sample test with SPSS version of IBM 22, obtained Sig (2-tailed) value of 0,000. Sig (2-tailed) value of 0,000 <0.05, it was concluded that Ho was rejected and Ha was accepted, which means there was a significant

difference between the learning outcomes of Civics in the dynamics of applying democracy in Indonesia before using mind mapping based learning media and after using mind mapping learning pocket media. From these results it is known that the pocket learning media based on mind mapping material on the dynamics of applying democracy in Indonesia, is feasible and effective to improve the learning outcomes of Class XI Civics in **Senior High School** *(*SMA) Negeri 11 Depok.

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