

# Development of Learning Pocket Books Pencak Silat Extracurricular as Junior High School Learning Resources

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**Abstract**—This study aims to assist students in carrying out extracurricular activities more effectively and assist in the learning process that can be carried out outside the extracurricular hours so that they are more effective. The trainer's limited ability to teach the material and greatly helped the trainer to launch the training. The research method used is a product-oriented Research and Development (R&D) research method. The development of this pocket book through the stages of identifying potential and problems, collecting data, designing and making initial products, validation by material experts and media experts. The product was tested on all students who took part in extracurricular activities at SMP 1 Muhammadiyah Medan, class 2 small group trials and class 3 large group trials. Data is collected through a questionnaire given to students. Data in the form of assessment results on product quality, suggestions for product improvement, as well as other qualitative data. Quantitative data were analyzed with descriptive statistics. The results of this research and development are products in the form of pencak silat learning pocket books that can be used as learning resources by junior high school students. The quality of products developed according to expert judgment on the material is "Very Good" with a mean score of 4.81, according to media experts "Very Good" with a mean score of 4.27. While overall student assessment is "Very Good" with a mean score as follows: the display aspect has a mean score of 3.86 included in the criteria of "Good", the content / material aspect has a mean score of 3.76 included in the "Good" criteria, aspects learning has a mean score of 3.88 included in the criteria of "Good", and aspects of readability have a mean score of 3.97 included in the criteria of "Good". The mean score of the conclusions of this study was 3.86 included in the criteria of "Good".

**Keywords:** *development of the pencak silat pocket book*

## I. INTRODUCTION

Education is essentially a learning process for changing behavior. The intended behavior is a way of thinking, behaving, and acting in accordance with educational goals. Education is an important part of human life because through education one will get more knowledge and have a place and position in society. [1] Law number 20, article 3 2003, The purpose of national education is to develop the potential of

students to become human beings of faith and devotion to God, virtuous, healthy, knowledgeable, competent, creative, independent, and become citizens who are democratic and responsible.

Based on the above background, the author tries to research about "Developing Pencak Silat Extracurricular Learning Pocket Books as Learning Resources for Middle School Students" The writer is interested in developing these learning resources because they can help students more easily learn basic pencak silat techniques. This study aims to produce a pencak silat learning pocket book that can be used as a learning resource for junior high school students. The results of this study will produce a product in the form of a pencak silat learning pocket that can be used as a learning resource for junior high school students.

[2] Development is the use of technical knowledge or knowledge in order to produce new materials or equipment products, and services that are substantially improved. Development is directed or emphasized on certain products, mostly experiments or studies to optimize products. Meanwhile, according to [3] development is the process of translating design specifications into their physical form. The development domain includes a variety of variations that are applied in learning, as well as not functioning independently apart from evaluation, management, and usage. Basically the development domain can be described by; (1) messages that are controlled by content, (2) learning strategies that are controlled by theory, (3) physical manifestations of technology hardware, software, and learning materials. Besides development is the process of translating design specifications into physical form. The physical form in this case is in the form of learning media products [4].

Development is the process of translating a design into its physical form by applying technology, both in print technology, audio visual technology, and integrated technology which will be rooted in the product.

Product-focused development is a systematic process for producing more specific instructional materials, based on established objectives so that a form of program (product) can

be produced, most effectively and efficiently used in teaching and learning in relatively short time.

In the purpose of development research usually contains two information, namely (1) the problem to be solved and (2) the learning specifications, models, questions, or tools that will be generated to solve the problem. As long as these two aspects are contained in a development research problem statement, the problem statement is correct[5]. It can be said that the purpose of Development Research is to inform the decision making process as long as the development of a product develops and the developer's ability to create various things of this type in future situations[6]. The benefits of development research are a process used to develop and validate products used in the learning process in education.

[7] Learning resources are all resources that can be utilized to provide convenience to someone in their learning. Learning resources can also be defined everything that can be used as a good source of people or tools that can provide convenience to students in obtaining all information, learning experiences, knowledge, and skills in the learning process. [8] [9] States that learning resources are basically everything (can be objects, data, facts, ideas, people, etc.) that can lead to learning processes. Examples of learning resources include textbooks, modules, Student Worksheets, models, models, banks, museums, markets, and so on.

In this study, researchers developed from textbooks / packages, the module became a pocket book that was designed as attractive as possible as a medium of learning to students.

That learning resources are all things in the form of people or tools that can be used by the teacher both separately and in combination for the purpose of learning with the aim of effectiveness and efficiency of learning objectives. However, to be able to achieve these learning objectives, it is necessary to utilize learning resources to achieve the learning objectives that are expected to be the responsibility of an educator so that the learning process of students is easier, smooth, and directed.

In the Oxford Dictionary, a book is defined as a number of sheets of paper, either printed or blank, fastened together in a cover, which is a number of sheets of paper, both printed and blank, which are bound and given leather [10]. Something similar is also found in the Big Indonesian Dictionary which defines books as sheets of paper that are bound, containing written or blank [10]. Meanwhile, according to [11] a pocket book is a small book that can be stored in a pocket and easily carried everywhere. Meanwhile, the book as teaching material is defined as a book that contains a knowledge of the results of the analysis of the curriculum in written form[12].

[13] Extracurricular activities are activities outside regular school hours, which are carried out at school or outside school with the aim of broadening student knowledge, regarding relationships between subjects, channeling talent and interest, and completing the coaching of whole people. [14] Extracurricular activities are activities that are carried out contextually with the circumstances and needs of the environment to meet the demands of mastery of subject competencies, the formation of basic characters and improvement of life skills whose time allocation is set

separately based on the needs and conditions of the school. Extracurricular activities are a place to accommodate, channel, develop interests, talents, and creativity of students which are carried out outside school hours which can ultimately support the success of teaching programs.

[15] Pencak is defined as a basic movement of martial arts that is bound by rules and used in learning, training, and performance. While silat is interpreted as a perfect martial arts movement that originates from pure holy spirituality for personal safety or mutual prosperity.

[16] States that pencak silat is an activity that encourages, awakens, develops physical fitness and fosters honesty and spiritual strength, especially devotion to God Almighty. Pencak silat as a martial art has the general characteristics of using all parts of the body and limbs from the tips of the fingers and toes to the head and even hair can be used as a means of self-defense, can be done with bare hands or using weapons, but not bound to the use of weapons. Certain, any object can be used as a weapon. Pencak silat is the result of Indonesian human culture to defend or maintain its existence and integrity to the environment or the natural surroundings by using all parts of the body and limbs from the tips of the fingers and toes to the head and even hair to achieve harmony of life in order to increase faith and piety in God the Almighty.

Based on observations made by researchers, one of the reasons why pencak silat learning has not been carried out properly is due to the lack of knowledge and skills of the Physical Education teachers on pencak silat learning materials at junior high school level. One alternative that can support pencak silat learning independently by students is to create learning resources. Learning resources are a set of teaching materials that are presented systematically and printed so that students can learn with or without a teacher. The development of this learning pocket book is one step to creating learning resources that are expected to be able to be used independently by students.

## II. METHOD

This research is a product-oriented research and development. According to [17] research and development methods are methods used to produce certain products and test the effectiveness of these products. Research and development in learning is a process used to develop or validate products used in education and teaching. In this study, researchers refer to model Borg and Gall[5] with 7 steps. This is done because of time and cost and is supported by [18] which states that research and development can be stopped until the final draft is produced, without the test results. The results or the impact of the development of motor activity already exists in the experiment's small group and large group trial. As for the 7 steps are described as follows: 1) Conduct a preliminary study (pre-survey), 2) planning, 3) draft product, 4) the trial early stage, and 5) a revision of the product, 6) Conducting field trials, 7) Perform revision of the product.

The procedures in this study can be presented the following:

- Analysis of needs: The study of literature and observations.
- Planning motion activity: Design Games for girls.
- The initial product design: Child motion analysis, designing forms of the game according to the stages of child development.
- Product trials of phase 1: to test and evaluate a small group of experts
- Revision products.
- Phase II product testing: to test the effectiveness.  
Product: Book of motion activity based child playing approach.

The location of the study was conducted at SMP 1 Muhammadiyah Medan, which addressed at Jalan Demak No. 3, Sei Rengas Permata Medan Area, Medan City. North Sumatra Province.

Before testing, the product made must be consulted with material experts and media experts. From the results of consultations by material experts and media experts, they will usually get product revisions, the next step is testing students, which is intended to improve the product so that when it is developed or used the product displayed is a truly valid and quality product.

The test subjects in this development research were the Aisyiyah Bantul Featured Middle School students determined by the researcher. The first stage is the product trial phase with a number of subjects of 6 students, the second stage is the trial use of the research subjects of 20 students. The technique to determine test subjects in this research development is determined from (1) the level of students' cognitive and psychomotor abilities, namely, smart, moderate, and lacking; (2) Determination of sex. The selection of students is done by researchers with the assistance of the sports teacher concerned because they better understand the characteristics of students.

The instrument used to collect data in this study was in the form of a questionnaire. The instrument in the form of a questionnaire was prepared with a view to evaluating the quality of the pencak silat learning pocket book which was used as a data collection tool from experts and students in connection with criticism, suggestions and input that was beneficial to product quality. Developing Pencak Silat Learning Modules as Learning Resources for Middle School Students" which has been modified based on the needs in this study.

Research data analysis technique is one of the most important steps in a research process because this is where the research results will be seen. Data analysis includes all the activities of clarifying, analyzing, using and drawing conclusions from all data collected in action. After the data is collected, the data is clarified into two data groups, namely qualitative data and quantitative data.

Quantitative data analysis techniques in this study used descriptive statistical analysis, in the form of very less, less, sufficient, good, very good statements that were converted into quantitative data with benchmark 5, namely scoring from numbers 1 to 5. Steps in the analysis data include: a). Collect rough data, b). Grading, c). The scores obtained were then

converted to a scale of 5 using a conversion reference from Arikunto quoted by [19], in table 1 below:

TABLE I. DATA ANALYSIS TECHNIQUE

Value	Criteria	Score	
		Formula	Calculation
A	Very Good	$X > X_i + 1,8 S_{bi}$	$X > 4,21$
B	Good	$X_i + 0,6 S_{bi} < X \leq X_i + 1,8 S_{bi}$	$3,40 < X \leq 4,21$
C	Enough	$X_i - 0,6 S_{bi} < X \leq X_i = 0,6 S_{bi}$	$2,60 < X \leq 3,40$
D	Less	$X_i - 1,8 S_{bi} < X \leq X_i - 0,6 S_{bi}$	$1,79 < X \leq 2,60$
E	Very Less	$X \leq X_i - 1,8 S_{bi}$	$X \leq 1,79$

Average ideal score (Xi) :  $\frac{1}{2}$  (ideal score max + ideal score min)  
 Standard deviation of the ideal score :  $\frac{1}{6}$  (ideal score max - ideal score min)  
 X ideal : Empirical skor

III. RESULTS AND DISCUSSION

The material validator in this study was Pak Paiman, S.Pd. researchers chose competence in the field of pencak silat. He is the Headmaster of Muhammadiyah Medan 1 Middle School and also a trainer. Can be obtained by providing the initial prodok in the form of a pencak silat learning pocket book along with an evaluation sheet in the form of a questionnaire to the material expert. Material experts assess and provide suggestions for improvements both in writing and orally. The evaluation given by the material expert included the quality of the pocket book, which was seen from the aspect of the quality of the learning material, this aspect, and the truth aspect of the learning material and its contents. Evaluation results are in the form of grades for the quality aspects of learning material and content using a scale of five, namely 1 to 5. While aspects of the truth of learning material and content in the form of comments and suggestions for improvement.

TABLE 2. EXPERT VALIDATION FOR STAGE I MATERIAL

No	Aspects that begin	Scoring Scale					Criteria
		1	2	3	4	5	
1.	Compliance with Basic Competencies and Competencie Basic					✓	Very Good
2.	Availability of learning			✓			Enough
3.	Clarity of learning objectives			✓			Enough
4.	Clarity of study instructions				✓		Good
5.	Accuracy in choosing material			✓			Enough
6.	Availability of learning activities			✓			Enough
7.	Availability of concept maps			✓			Enough
	Total	0	0	15	4	5	
	Total Score	24					Enough
	Average Score	3,2					

The initial product is made after going through a process of curriculum analysis, analysis of student characteristics, material analysis, and formulating goals. Curriculum analysis is useful to determine the competencies in which the handbook will be developed. Analysis of the characteristics of students need to be known to compile a pocket book that suits their academic abilities.

Material analysis is carried out by identifying the main material that needs to be taught, gathering and selecting relevant material, and systematic rearranging. Before writing a

pocket book, learning objectives and competencies to be achieved need to be formulated in advance. This is useful to limit researchers so that the material arranged in a pocket book does not deviate from its original purpose. After various analyzes are carried out, the researcher carries out the process of gathering materials that will be used when preparing the pocket book. Then through the design process in this context in the design context the initial product is produced in the form of a pencak silat learning pocket book.



Fig. 1. Example of a Pencak Silat Pocket Book Cover



Fig. 2. One example of martial arts movements

At the beginning of the development of this pencak silat learning pocket book was designed and produced into an initial product in the form of a martial arts pocket learning pocket book for junior high school students. The development process through research and development procedures adopted from [4] namely; identify potentials and problems, collect data, design products, design validation, design revisions, product trials, product revisions, product trials, product revisions, mass products. In designing the product stage most of it is developed with Microsoft Publisher application, but there are supporting applications namely Corel Draw and Adobe Photoshop. At the design validation stage, the initial product is evaluated or validated by experts who are experts in martial arts material and media experts (learning technology). After the initial product is validated, it is then tested on students on product trials and usage trials.

The product validation process from the material expert produces data that can be used to correct errors in the initial product. The material validation process in this study was carried out twice, namely; stage I and stage II. Data expert validation for stage I material is used as a basis for repairing or revising the initial product so that it produces a product for stage II validation. At the stage of expert validation phase II, there are no more suggestions for improvement so the media expert validation is continued.

The validation process of media experts was carried out twice, namely; stage I and stage II. The data validation of stage I media experts is used as the basis for repairing or revising the initial product so that it produces a product for stage II validation. In the validation of phase II media experts there are no more suggestions for improvement and the products developed are worth testing out for students. The testing process for students is carried out through two stages namely; product trials and usage trials. Product trials were applied to 6 students, while the use trials were applied to 20 students. After the final revision, a final product is produced.

The quality of this pencak silat learning pocket book product is included in the criteria of "Good" and "Very Good". The statement can be seen from the results of the analysis of the validation of material experts and media experts by providing an assessment with the criteria of "Very Good", the results of the analysis of the group trial data with the criteria of "Good", and the results of the analysis of the data on the use of the trials with the criteria of "Very Good". From the product trials and usage tests, there were some comments from students related to the pencak silat learning pocket book.

There are some comments from students that show the advantages of this product. Among them is an attractive appearance, pocket books can be carried anywhere so that it adds time for independent learning in accordance with the wishes of students, interesting colors and various shapes, the material is easy to understand, easy to accept because it is clarified with pictures, this learning pocket book is very simple to read when wherever it is, because it can be stored in a pocket, with this book students can learn with pleasure, this pocket book is good enough to help learning. Students' interest in this pencak silat learning pocket book is a sign of students' motivation to learn. In addition to the advantages of this product, as for some disadvantages in this product, namely; the absence of question exercises as an evaluation of student learning outcomes, and the absence of momentous material such as advice given by students.

#### IV. CONCLUSION

The results of research and development produce a product in the form of a pencak silat learning pocket book that can be used as a source of learning by students of SMP 1 Muhammadiyah Medan.

The quality of the learning pocket book developed according to the expert content assessment is "Very Good", and the assessment of the media expert is "Very Good". The mean score on the material expert judgment is 4.81, and the average score on the media expert judgment is 4.27. Student assessment is "Good" with a mean score as follows: the display aspect has a mean score of 3.86 included in the "Good" criteria, the content / material aspect has a mean score of 3.76 included in the "Good" criteria, the learning aspect has a mean score 3.88 is included in the "Good" criteria, and the readability aspect has an average score of 3.97 included in the "Good" criteria. The overall average score of 3.86 is included in the "Good" criteria

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