

The Development of Pencak Silat Gymnastics for Group B Children in Kindergarten

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ABSTRACT

This research was aimed to develop the Early Childhood Pencak Silat Gymnastics which had been proven its validity and practicality. This development research used ADDIE and Tessmer formative evaluation with the needs analysis, product design, and evaluation stages consisting of self-evaluation, expert review, one-to-one evaluation, and small group evaluation. Data analysis techniques used walkthrough and observations and checklists. The results showed that the validity of the material was 75% and the validity of the media was 90% and an average of 83% was included in the very valid category. The one-to-one evaluation stage involved three children with 87% of data results and the small group evaluation stage involved nine children with 87% of the data results from both of them obtained an average of 87% which was included in the very practical category.

Keywords: *Gymnastics, Pencak silat, Children group B, Kindergarten.*

1. INTRODUCTION

Pencak silat is one of the sports in the nation's culture which has artistic, moral, spiritual, social values that must be developed and to uplift the dignity and honor of the Indonesian nation. One form of preserving the nation's culture is through learning Pencak silat at school and outside of school. In formal educational institutions such as schools, Pencak silat is part of the physical and sports education curriculum which is taught from basic education to tertiary education, although its implementation has not been optimal due to various problems. Outside schools, Pencak silat is taught to offices and agencies, both government agencies and non-government agencies.

Gymnastics is a body exercise that is chosen and created with a plan, paying attention to various physical components, be it strength, flexibility, balance, coordination of a series of movements by following the rhythm of the music. Physical motor development of kindergarten children in this case. Can be seen in their appearance, body proportions, body weight and length, and their skills. Furthermore, the physical development that occurs in kindergarten children on the other hand can boost their ability to perform certain motor skills. According to the character of the active child, such as never getting tired of doing various activities, they like new and challenging things. Activities that contain

physical elements greatly support the development of early childhood intelligence, especially in the field of exercise.

Based on the results of interviews and observations at three schools, namely: TK Negeri Pembina 1, TK Kartika II and TK IT Izuddin, of the three kindergartens concerned it is necessary to develop early childhood Pencak silat gymnastics to introduce culture, develop children's motor skills and improve children's kinesthetic intelligence. through the martial arts movement. "Pencak Silat Gymnastics influences the kinesthetic Intelligence of Group B children". The problem in this study is whether the activities of Pencak silat gymnastics can affect the kinesthetic intelligence of Aisyiyah Bustanul Athfal Beran Kindergarten children in Wonosobo academic year 2015/2016. The results of this study indicate that the influence of children's kinesthetic intelligence through Pencak silat exercise has increased statistically significantly [2].

Based on the regulation of the Minister of Education and Culture of the Republic of Indonesia No. 137/2014 concerning the National Standards for Early Childhood, it is said that children aged 5 to 6 years in the scope of gross motor development of children can carry out coordinated body movements, coordinate eye-hand-foot-movement. head in imitating gymnastic movements, skilled in using the right and left hands.

Based on the explanation above, the researcher raised the title "Development of Pencak Silat Gymnastics for Group B Children in Kindergarten".

2. METHOD

The type of research used is Development Research (research & development). Development research is research that is used to produce tested products. Development research has several models, but in this study researchers used the ADDIE development model and modified Tessmer evaluation. This study aims to produce a medium in the form of pencak silat exercise for group B children in kindergarten.

2.1 Planning

At this stage, the researcher carried out an analysis of the needs and characteristics of child development, where the researcher analyzed three kindergartens, after knowing the results of the analysis and seeing the characteristics of the child's development, the researcher formulated game criteria following the needs of developmental characteristics.

One of activities that contain physical elements that support the development of children's abilities, especially in the field of body exercise is extracurricular Pencak silat. The stimulation is following the theory that the term Pencak silat contains elements of sports, martial arts, and debating. So that in addition to physical training in Pencak silat, children's martial arts training will also form some positive values about personality [4].

2.2 Development

The development stage carried out is design development. The development design in this research is early childhood Pencak silat gymnastics. The Pencak silat gymnastics developed are movements using several patterns of steps, and using songs typical of the South Sumatra region because they are adapted to the area of origin of the researcher.

Then the design of the guidebook was made with a picture of the Pencak silat movement. This book is A5 paper size and then the background on each sheet of the book uses a picture of Pencak silat. Before entering the Pencak silat gymnastics movement guide, an explanation is provided about what movements are used, some of the steps patterns used, and what songs are used. In the explanation of the gymnastics movement guide using images with a count of 1x8 and in the description, the movements are explained in more detail and at what minute the movements are started to make it easier for teachers who do not understand previous Pencak silat movements [3].

The level of difficulty of activities in kindergarten must be appropriate for the child's age so that children

can be stimulated properly. Activities that contain physical elements that support the development of children's abilities, especially in the field of body exercise, one of them is the extracurricular Pencak silat [5].

Pencak silat extracurricular activities apart from physical training In the children's martial arts training, some positive values about personality will be formed as well as knowing and preserving the Indonesian nation's culture. The term Pencak silat contains elements of sport, martial arts, and debating. Pencak silat is the result of human culture to defend or maintain its existence (independence) and integrity (manual) [6].

M Hope in early childhood as follows: Golden age in children is a time when children are sensitive to receive various stimulation and various educational efforts from their environment, whether intentional or unintentional. This sensitive period occurs when physical and psychological functions mature so that children are ready to respond and realize all developmental tasks that are expected to appear in their daily behavior patterns. The characteristics and structure of gymnastic movements are physical activities that are very suitable for developing movement skills and physical qualities of children [8].

2.3 Evaluation

The evaluation phase is carried out following Tessmer's formative evaluation flow, with the following steps:

Self-evaluation, the self-evaluation stage was carried out the earliest by the researcher. This research was conducted to determine the resulting pencak silat gymnastics movements are following the characteristics and according to the needs of early childhood.

After conducting self-evaluations, they enter the expert review stage, namely by testing by experts in their respective fields, namely media experts and material experts. Suggestions and comments from the validation results are in the form of a validation sheet which will later be used as a reference for revising early childhood Pencak silat gymnastics movements. At this stage it will produce prototype 1 which has been revised through the evaluation results.

The next stage is one to one evaluation. At this stage the research began to be trialled by involving three children in TK Negeri Pembina 1 Palembang. Due to the COVID-19 outbreak which made it impossible to conduct research directly and the prohibition of gathering according to large-scale social restrictions or PSBB, therefore researchers asked for help from the child's parents where the researcher provided a video of Pencak silat exercise, then the researcher gave a book a guide that explains early childhood martial arts

exercises and examples of Pencak silat gymnastics movements used for parents. Then parents give examples to children and teach martial arts movements so that they can be imitated by children. Furthermore, the task of the parents is to supervise and videotape the child while the child moves the Pencak silat gymnastics movement. The data obtained at this stage is to see the practicality of the game tool, researchers only see and assess through videos sent by the child's parents. The results of the observations were also used as the basis for revising the prototype 1 product to produce prototype 2.

After getting prototype 2, then with the small group stage, at this evaluation stage, the evaluator chose nine children, then the children were given learning using prototype 2. In the learning stage the children were re-observed using the observation sheet, the evaluator looked at the child's behavior while moving the pencak silat gymnastics movement of silat through videos sent by the child's parents.

Non-loco motor movement is the ability to move the body on the spot, without any room for movement. Non-locomotor skills are movements that do not move places, relying on the joints of the body to form different positions while remaining at one point. Non-loco motor skills in Pencak silat are used, especially in the development of flexible body movements. Supported attitudes and static balance in gymnastics get a lot of emphases; these movements are closely related to children's non-loco motor abilities [1].

The ability to memorize a child is as follows: A child's ability to memorize can be used by parents or kindergarten teachers to stimulate children's brain development, one of which is allowing children to move, play, sing and listen to music because some of the memories are recorded in the brain of early childhood is when the child does the activity of singing (memorizing songs), fun games and listening to music. This process is very important for developing thinking skills that will last a lifetime [7].

Through physical activity, movement and songs can make a big contribution to balance the brain of early childhood, by combining physical activity (sports) and listening to music or singing activities, which can help support brain development. Children follow the song by moving all limbs, it can be useful to stimulate the functioning of both hemispheres of the brain, both the left and right brain [9].

2.4 Research Instruments

2.4.1 Expert Validation Instruments

Table 1 Material Validation Instrument Grid

Aspect	Indicator	Item
Content validity	The suitability of Pencak silat gymnastics with the curriculum used	1
Material validity	The suitability of Pencak silat exercise with the developmental characteristics of children aged 5-6 years	2

(Modification of Ministry of Education and Culture Regulation, 2014)

Table 1 is a grid of validation instruments validated by the material with statements about material criteria and the quality of the material taken. On the lattice of this material, the instrument contains statements, among these items are as follows: 1) the suitability of the Pencak silat gymnastics movement with the curriculum used in which there are four descriptors, namely the Pencak silat gymnastics movement according to the level of achievement of the development of children aged (5- 6) years, the suitability of Pencak silat exercise with learning objectives, the suitability of the Pencak silat movement with the child's ability level, and the simple Pencak silat exercise movements.

Aspects in the second item, namely construct validity include: the suitability of Pencak silat exercise with the developmental characteristics of children aged (5-6) years in which there are four descriptors, namely movements that are made attractive and easy to imitate, movements that are used are not many and movements are made repeatedly, movements according to children's abilities, and simple Pencak silat gymnastics movements[11].

Table 2. Grid of Media Validation Instruments

No.	Aspect	Item	Statement
1	Educational Aspects	1	1,2,3,4
2	Technical Aspects	2	5,6,7,8
3	Aesthetic Aspects	3	9,10,11,12

Table 2, the media validation instrument grid in the form of a Likert scale, contains statements related to the criteria for the resulting song which contains the following items: 1) in accordance with the basic competencies of recognizing limbs, functions, and movements for gross motoric and fine motoric development , 2) according to the indicators (doing various coordinated movements in a controlled, balanced, agile manner, doing activities that show the child is able to play physical games according to the

rules), 3) in accordance with the objective of training gross motor movement skills through pencak silat gymnastics, 4) with the material, namely the martial arts movement, 5) the child can carry out coordinated body movements to train flexibility, balance, and agility, 6) the child can perform the pencak silat gymnastics movement correctly, 7) children can walk backwards, 8) children can do pencak silat gymnastics with various patterns, 9) pencak silat exercises contain cultural elements, 10) pencak silat gymnastics has goals for child development, 11) pencak silat gymnastics uses the pencak silat movement which simple, 12) pencak silat gymnastics according to the pattern of child development (child characteristics).

2.4.2 Children's Observation Instruments

Table 3. Grid of Observation Instruments

No	Variable	Sub verbal	Statement Number
1	The suitability of Pencak silat exercises with the developmental characteristics of children aged (5-6) years	Coordinate eyes, hands and feet regularly	1
		Doing coordinated martial arts movements to train balance and agility	2
		Walk forward and backward to the music	3
		Right and left-hand skills	4
2	The practicality of early childhood Pencak silat gymnastics	Pencak silat gymnastics movements are easy for children to follow with musical accompaniment	5
		Pencak silat gymnastics movements attract children's attention	6
		The steps for pencak silat exercise are easy for children to understand	7
		Pencak silat gymnastics movements are moved according to children's interests	8

Table 5 of the children's observation instrument lattice contains indicators that are used as benchmarks for the level of developmental achievement that the child has achieved. The observation instrument in this study included performing Pencak silat gymnastics

movements by moving the body movements in a coordinated manner. The indicators of practicality are easy to implement, attractive to children, easy to understand movements, and fun for children.

2.5 Method of collecting data

The data collection methods in this research include the following:

2.5.1 Observation Techniques and Checklist Sheet

The checklist contains the name of the subject on the assessment sheet to assess and give a mark or checklist to the observation target. This data is a score that is converted into a value for the validity value of a product produced.

Observation is used to observe directly the child's behavior when participating in the Pencak silat exercise during learning. The observation technique was carried out at the one to one and small group stages. The results of the observations are recorded on the observation sheet which contains a grid for assessing children's behavior. The grid contains child indicators that are used as a measuring tool for the level of achievement of children's development.

2.5.2 Interview Techniques

The interview technique was carried out on three teachers from three different schools. This data is in the form of qualitative data used to fulfill needs analysis.

2.6. Data analysis method

The data analysis methods in this research include the following:

2.6.1. Data Analysis Checklist Sheet

The checklist sheet data analysis technique aims to assess the validity of early childhood Pencak silat gymnastics products, then analyzed again descriptively as input for revising early childhood Pencak silat exercise. The data that has been collected is then calculated using the following formula:

$$\text{Percentage Value} = \frac{\text{Skor Perolehan}}{\text{Skor Max}} \times 100\% \quad (1)$$

(Sunarti & Rahmawati quoted by Pratiwi, et al, 2018)

The results of the validation are presented in tabular form. Next look for the average score using the following formula:

$$X = \frac{\sum X}{N} \quad (2)$$

In Equation (2), X is average value, $\sum x$ is the number of data values, and N refers to lots of data

2.6.2. Observational Data Analysis

The one to one stage and the small group of child observation results were used to see children's abilities and behavior during the learning process of early childhood Pencak silat gymnastics. The observation data is then calculated using the following formula:

$$\text{Percentage Value} = x 100\% \frac{\text{Skor Perolehan}}{\text{Skor Max}}$$

(Sunarti & Rahmawati quoted by Pratiwi, et al, 2018)

Based on the formula above, the percentage value of product practicality is obtained from the score obtained by the child in the observation divided by the maximum score then multiplied by 100%. From this percentage, it can be determined the percentage value category of the practicality of the product developed is following the observation value interpretation table.

3. RESULTS AND DISCUSSION

The first step is to needs analysis. Needs analysis is carried out to identify problems that arise in the field. Needs analysis needs to be done using observation and interviews conducted in three kindergartens in Palembang City, namely TK Negeri Pembina 1, TK Kartika II and TK IT Izuddin. Interviews were conducted by asking some questions to the informants regarding the learning of the Pencak silat gymnastics that you want to do, children's movement activities that are often carried out, time allocation for the learning process and the obstacles experienced by teachers and parents.

Interview result stated that learning by moving Pencak silat exercises has never been done because in every kindergarten in general, it only moves cheerful gymnastics. Modify fantasy gymnastics using stories tailored to the learning theme. As for the previous exercise in early childhood, the teacher must be a direct object to be imitated by the child. So now it is necessary to develop attractive Pencak silat exercises for early childhood so that children are more enthusiastic and interested in participating in learning using videos, guidebooks, and even parents / teachers who become direct objects for children to imitate.

After analyzing the needs and characteristics of the children, it can be seen that the school needs Pencak silat gymnastics for early childhood, the researchers plan to make Pencak silat gymnastics movements that are easy for children to understand and easy for children to follow. Minister of Education Regulation No. 146 of 2014 contains indicators of gross motor development in children. In the development of Pencak silat gymnastics for group B children, the indicators are: 1) Coordinate eyes, hands and feet regularly, 2) Doing coordinated martial arts movements to train balance and agility, 3) Walk forward and backward to the music, 4) Right and left-hand skills.

Researchers describe the Pencak silat gymnastics movements and guidebooks through child development indicators, namely those of educational value, safe and durable to use, and valid and practical for children according to the curriculum. The design of the Pencak silat exercise is in the form of a video and a guidebook that is following the learning of early childhood pencak silat exercise. Because in essence children are very interested in new and challenging things following the character of an active child that children have never had before.

After conducting the interview, the design of the game was carried out by encouraging the analysis of children's needs which included the movements of the Pencak silat exercise. Furthermore, a discussion with the material validator Dr. Mrs. Sri Sumarni, M.Pd and media validator Mrs. Mahyumi Rantina, M.Pd regarding Pencak silat gymnastics for group B children but due to the COVID-19 pandemic which resulted in schools being closed and replaced by studying at home to break the chain of spread of the COVID-19 virus. 19, the researchers asked for help from the parents of the TK Negeri Pembina 1 Palembang to teach Pencak silat gymnastics at their respective homes by including the birth certificates of children who were participants in early childhood Pencak silat gymnastics research.

4. CONCLUSION

Based on the results of data analysis in the research entitled the development of Pencak silat gymnastics for group B children in Kindergarten, it can be concluded that the results of the research on early childhood Pencak silat gymnastics developed are declared very valid based on the results of the calculation of the expert review stage from the two material expert validators Media experts get a score of 83% with a very valid category. Early childhood Pencak silat gymnastics is stated to be very practical based on the results of the one-to-one evaluation and small group evaluation, with a value of 87%. Based on these results, it can be stated that the Pencak silat exercises for group B children in Kindergarten are very practical to use.

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