

# Development Of Hadang Traditional Game Through Plyometric Exercise Method

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**Abstract-** *Hadang Game or Gobak Sodor* is a regional game from Indonesia that played by children. This game is a team game consist of two teams, each team consists of 5-7 people. The core of the game is to block your opponent from being able to get past the line specified in the rules of the game. To win, players must collect points by passing guards from the front row to the back row, and vice versa. This study aims to determine the results of the development of plyometric exercise method (Scissor Jump, Stride Jump Crossover, Lateral Bound) and for playing games. Plyometric is an exercise method that focuses on movement at high speed. The method used in this study is research-based development (R & D), aimed at developing plyometric exercise products. The research sample is the fifth grade students of SD Negeri 98 North Bengkulu amounting to 28 people. In the preliminary observation, the researchers have obtained pre-test data and the results of interviews from both teachers and students. Based on the results of the study using the plyometric method shows that the basic physical condition of the fifth grade students of SD Negeri 98 North Bengkulu in the good category. This is evidenced by the results of cognitive and psychomotor tests that have been conducted on small group trials with the acquisition of a percentage of 20% (2 people) with very good categories, 50% (5 people) with good categories, 10% (1 person) with enough categories and 20% (2 people) with less categories. Whereas in large group trials there was a percentage of 21% (6 people) with a very good category, 43% (12 people) with a good category, 25% (7 people) with enough categories, and 11% (3 people) with less category. Thus, it can be concluded that the plyometric method is feasible to be used for is the fifth grade students of SD Negeri 98 North Bengkulu. Suggestions for the teachers, that the use of the plyometric method is an alternative in the learning process, especially *Hadang* traditional game.

**Index Terms-** Hadang Traditional Game, Plyometric Method.

## I. INTRODUCTION

The game is one form physical education activity in elementary school. Playing is an individual's need and there is a natural instinct from birth. Children will play with pleasure and burden. Natural instincts must be nurtured and channeled to positive and well-controlled things.

Traditional games are a means to introduce children to cultural values and social norms needed to establish relationships or social contacts and play a role in accordance with social positions in the community. Traditional games not only provide

recreational value or just have fun. More than that, traditional games also have the value of physical education (sports) and even social values. That is because in traditional games there are elements such as sportmanship, honesty, precision, agility, accuracy in determining steps, and working together in groups.

*Hadang Game or Gobak Sodor* is a kind of regional game from Indonesia that we can still find today played by children of elementary school. This game is a group game consisting of two groups, where each team consists of 5-7 people. The point of the game is to block the opponent from being able to get past the line to the last row back and forth, and to win the game, all group members must complete the process back and forth in the specified area.

Each region has a game that is almost the same implementation or much in common with games in other regions. The game names are the same or sometimes it is different from the other regions. For example, it can be stated in Central Java known as *the Gobak Sodor game*, in Jakarta it is called *Galasin*, while in North Sumatra it is called *Margalah*, but the game has the same rules. In order not to be confused, the Sports Director named the game as *Hadang Game*, it based on the observation that the task of the game is to block.

Based on observation and interview with physical education teachers at SD Negeri 98 North Bengkulu. In learning, physical education teachers only provide material in accordance with the existing curriculum without adjusting the existing environmental conditions at school. The teacher has never given a game to play through plyometric exercise, there is an opportunity to develop a face learning model because it has a field and physical education tools available at school.

The researchers wanted to develop traditional games through plyometric exercises so that students were more enthusiastic in physical education. Plyometric exercises show the characteristics of full strength of muscle contraction with very fast response, dynamic loading or very complicated muscle stretching (Radcliffe and Farentinos, 1985: 111). According to Chu (2000: 6) plyometric has the advantage, using force and speed achieved by accelerating body weight against gravity, this causes the force of velocity in practice.

The development of *Hadang* traditional game through plyometric exercise can be used in outdoor and indoor fields. The dominant physical elements that emerge in the game include reaction speed, sprint speed, and agility. In addition to these physical elements, there are also other elements, namely cooperative elements which include teamwork. The development

of game play in physical education through plyometric exercise is carried out with the aim of preparing students to move actively in learning. The learning model used is motion learning in the game of running techniques, deception and concentration. The learning method used is the PAIKEM approach-*Pembelajaran yang Aktif, Inovatif, Kreatif dan Menyenangkan* which is active, innovative, creative, and fun learning. Based on the description, the researchers are interested in conducting a research entitled: "Development of *Hadang* Traditional Game Through Plyometric Exercise Method".

## II. LITERATURE REVIEW

Traditional games are physical activities that are carried out consciously and intentionally and use rules on the basis of habits that are inherited from one generation to another, Sumardiyanto (2010: 3). Traditional games are games played by children of ancient times. Most of these games are done in groups. The lives of people in the past who do not know the outside world have directed and guided them to high social and togetherness activities.

Moreover, Indonesian culture in general highly upholds the values of togetherness. This then led to the creation of traditional types of games. Unfortunately the development of the era, especially the rapid development of technology has made this type of game disappear slowly.

Traditional games are a form of game activity that develops from a particular community habit. In subsequent developments traditional games are often used as a type of game that has original regional characteristics and is adapted to local cultural traditions. In the implementation of traditional games can include elements of folk games and children's games into it. It is even possible to include activities that contain elements of art such as what is commonly referred to as traditional art (Agustin, 2013).

Traditional games here can be synonymous with traditional sports terms. In order for an activity to be categorized as a traditional game of course the elements of tradition must be identified which have a close connection with the habits or customs of a particular community group. In addition, the activity must also contain strong physical elements that obviously involve large muscle groups and also contain elements of spirit which underlie the intent and purpose of the activity. That is, an activity is said to be a traditional game if the activity is still recognized as having certain traditions. Involving large muscles and the presence of strategies and their fundamentals do not really look like what they display (Agustin, 2013).

Plyometric comes from the word "plyethyein" (Greek) which means to improve, or it can also be interpreted from the words "plio" and "metric" which means more and measure, respectively which means stretching (Radcliffe and Farentinos, 1985: 3). Plyometric is a method for developing explosive power, which is an important component in achieving plyometric exercise which results in isometric muscle movement and causes reflex strain in the muscles. Plyometric exercises are carried out a series of power exercises specifically designed to help muscles reach their maximum potential level in the shortest possible time.

Plyometric is the right practice for people who are conditioned and devoted to becoming athletes in increasing and developing maximum jump, speed, and strength. Chu (1992)

explained that plyometric is a training method that emphasizes movements at high speed, plyometric training to apply speed to strength.

## III. METHODOLOGY

### Research Methods

Research-based development is a type of research that use in solving practical problems, especially education and learning research. According to Borg & Gall as quoted by Wasis D (2004: 4) research and development is a process used to develop or validate the products used in learning education. Furthermore, it is stated that the research and development procedures basically consist of two main objectives, namely: (1) developing the product, and (2) testing the effectiveness of the product in achieving its objectives.

Samples are partially or representative of the population studied, Arikunto (2002: 109). According to Sugiyono (2007: 56) the sample is a portion of the number and characteristics possessed by the population. The sample in this study was the fifth grade students of SD Negeri 98 North Bengkulu, amounting to 28 people. The sampling technique is to include all individuals or members of the population into a sample. The sampling technique in this study is total sampling.

Based on the results of needs analysis, the next step is the development of *Hadang* game exercise model modified in the form of developing a plyometric exercise model (Drill Scissor Jump, Stride Jumps, Lateral Bound Drill). In developing the exercise model developed, the researcher made an exercise model based on the study which was then evaluated by a physical education teacher as a learning expert.

The design of the research by using the Plyometric Exercise Model (Drill Scissor Jump, Stride Jumps, Lateral Bound Drill) with the form of the development of game play to train physical conditions tailored to the needs of students in learning to solve so that learning can run more effective and efficient. This development of exercise model is designed s in learning variation and can optimize the movement of students by utilizing existing facilities and infrastructure. The learning in the form of this game is competitive to increase enthusiasm, fair play attitude and high fighting ability.

## IV. RESULTS AND DISCUSSION

### The Results Data of Small Scale Trials

After the drafting of the initial product, the traditional game development model was completed, the product was tested on the fifth grade students of SD Negeri 98 North Bengkulu 98 using a total sampling method.

This small-scale trial aims to find out and identify various problems such as weaknesses, shortcomings, or effectiveness of products when used by students. Data obtained from this trial was used as a basis for revising the product before being used in large scale trials.

Based on the results data of the questionnaire filled out by the students obtained the percentage of answers that correspond to the aspects assessed at 80%. Based on the criteria that have been determined, the traditional game development model with the

plyometric method has met the criteria very well, therefore it can be used for fifth grade students of SD Negeri 98 North Bengkulu.

### The Data Analysis Results of Small Scale Trials

In the analysis of data from the results of small-scale trials carried out obtained through cognitive and psychomotor test results that have been done with the acquisition of a percentage of 20% (2 people) with a very good category, 50% (5 people) with good categories, 10% (1 people) with enough categories, and a percentage of 20% (2 people) with less categories. Based on the predetermined criteria, the development products of *Hadang* traditional game using Plyometric have fulfilled the **Good** criteria, therefore it can be used for the fifth grade students of SD Negeri 98 North Bengkulu. The factor that makes this model acceptable to fifth grade students of SD Negeri 98 North Bengkulu is the assessment of the quality of *Hadang* traditional game models with plyometric methods performed on psychomotor and cognitive aspects that have met the criteria of **Very Good**.

### The Results Data of Large Scale Trials

Based on expert evaluation and small-scale trials the next step is a large-scale trial. Large-scale trials aim to determine the effectiveness of changes that have been made to evaluate cognitive and psychomotor tests and small-scale trials whether the development model of *Hadang* traditional game using a plyometric method can be used. Large-scale trial data was collected using questionnaires.

Based on large-scale trials, data obtained from students who have understood and are able to practice traditional sports correctly in a percentage of 89%. Based on the predetermined criteria, the development model of traditional game using the plyometric method meets the criteria very well, so that it can be used for fifth grade students of SD Negeri 98 North Bengkulu. The following data shows the percentage of student questionnaires. In a large group trial a percentage of 21% (6 people) with a very good category is obtained, 43% (12 people) with good categories, 25% (7 people) with sufficient categories, and a percentage of 11% (3 people) with less categories.

### The Data Analysis Results of Large Scale Trials

The Data Analysis Results of Large Scale Trials obtained a percentage of answer choices that were 90% suitable. Based on criteria that had been determined, the development model of traditional game using the plyometric method had met the criteria **very well**, therefore from large-scale trials this model could be used for fifth grade students of SD Negeri 98 North Bengkulu. The factor that makes this model acceptable that is all aspects

tested, 90% of students can exercise well. Both from understanding the rules of the game, the application of attitudes in traditional game activities has to be carried out using a plyometric method that is in accordance with the level of growth and development.

## V. CONCLUSIONS

The development model products of *Hadang* traditional game using the plyometric method can be practiced by the test subjects. It was based on the results of the analysis of cognitive tests and psychomotor tests of the results of small-scale trials of 80% and large-scale trials of 90% and meeting the criteria very well.

If there are no problems, the development of *Hadang* game using the plyometric method can be continued, but if there is a problem, the game development model can be adjusted and then a work evaluation can be done to obtain the conformity of the development model of *Hadang* traditional game to the conditions and situations in the field.

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