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Games Based Model Of Volleyball Passing Exercise For Junior High School Student

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Abstract

The purpose of the study was to develop a model of volleyball passing exercise through games. The study used qualitative and quantitative using Research and Development from Borg and Gall which consists of ten stages. The subject in this research is junior high school student in Makasar. Data were collected through interview and questionnaire. Data analysis was done descriptively, qualitatively and quantitatively. The results of finding shows that games have given exercise variation which makes some students interest and fun when they do volleyball passing exercise. The model has twenty types of games in volleyball passing exercise.

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INTRODUCTION

Sport is an activity that is able to be a medium to facilitate one's needs in conducting energy. In addition, sports can be used to build attitudes of respect, cooperation, courtesy, rules of the game, kinship, and so on. It can omit negative attitudes that can be distracted by positive things. Basically, children do negative things because children have excess energy or what is called an energy surplus. As stated Saracho & Spodek (1995) that the surplus energy theory is all living things (humans and animals) produces energy. It is at least sufficient to meet their needs for survival. When they produce more than what is needed, the extra or "surplus" energy is eliminated through play. It means that play serves to rid the organism of "excess energy," the energy that is left over after basic survival needs are met.

Hardman & Jones (2011) concluded that in the past few decades, a significant body of knowledge has been developed in which sport has been examined from a social and cultural perspective. Sport is not necessary for human survival but serves a series of significant social and cultural interests and goals. One of the series of socio-cultural interests is self-actualization activities in physical activities such as sports, playing, competing, competing which the government has provided for students such as the National Student Sports Olympiad (NSSO) activities. NSSO activities are as a place for physical, health and achievement in the field of sports as well as a place to channel students' interests and talents in sports (Kemendikbud, 2015).

The main subjects in the implementation of NSSO are students. Then efforts are needed to improve the health conditions and creativity of students through sports activities that are empowered by the school. One of them is through extracurricular activities in the field of sports. Extracurricular activities in the education have the functions of development, social, recreational and career preparation (Kemendikbud, 2013). The container that has been provided by the school to develop itself as much as possible in sports certainly needs to be utilized as well as possible through the training process.

The main goals and objectives of exercises are to help athletes improve their skills and achievements to the maximum extent possible (Harsono, 2015). One form of exercise that can be done is through extracurricular activities in sports, such as volleyball. Volleyball is an interesting sport for public. This sport is relatively easy and inexpensive to do. It easily found in community activities are no exception in Indonesia.

Volleyball development has increased the

education practice abilities (Ren, 2013). It means that the activity of analyzing and researching volleyball has an important meaning in promoting the development of volleyball and improving the ability of educational practice. It certainly has a holistic goal which is to achieve cognitive, affective and psychomotor goals. The exercise can go through healthy competition. Nikolov (2015) stated that volleyball is an essential tool for education and helps in achieving the main task of physical education, proper physical and mental development of the individual. Volleyball is also a social game. The good coordination and cleverness come up to the important place team players (Vasil, 2012).

To reduce the number of errors that occur, it is necessary to foster student volleyball extracurricular participants who excel at the volleyball sports through coaching experts in their field. Rosa, Pereira, Maria, & Mesquita (2010) states that high performance sports training is activity is very complex and requires considerable effort from specialists. The explanation states that improving sports performance is very complex and requires great effort from experts. They are coaches of sports. Besides that, the performance of a trainer, of course there are still many other needs which must be met to overcome the teenage problems.

One of the needs that must be met in training and game activities is needed, is an interaction. A game can provide the venue for a range of social interactions to unfold, competition, cooperation, negotiation, etc (Soute, Markopoulos, & Magielse, 2010). In the game provides a place for various social interactions such as competition, cooperation, negotiation and so forth. This social interaction can be formed through variations of exercises that use games. Game-based exercises can improve athletes skills and fitness.

To improve their skills in volleyball, especially in passing skills, researchers provide modified games. The game to be delivered has a new nuance that aims to achieve the training objectives. Rosa et al., (2010) states that the rationale of these game-based models is on the assumption that game tasks are not only moments for application skills, but also spaces to solve problems. The rationale for game-based models is based on the assumption that game tasks are not only moments of skill application, but also to solve problems. Delivering volleyball training using games is in accordance with the characteristics of volleyball game itself

Volleyball training skills should be viewed as a sports activity with an educational purpose, that is fostering collaboration and teamwork, and teaching the importance of developing a strong

body and a healthy mind. These characteristics of volleyball can be used by coaches to help children in learning the joy of sports through training and playing. One should always remember that coaching volleyball is about providing valuable experiences that children need for their future while enabling them to experience the joys of self-improvement (Krishna, 2016).

The development of a volleyball player depends on the athlete's potential, level of commitment and working habits, as well as the quality and quantity of training. The entire developmental process of a volleyball player is the result of several complexes, individually tailored conditioning programs, including physical, technical, psychological, cognitive and competition conditioning (Lenberg, 2006). These things clarify the importance of preparation of each individual is to have maximum self-potential. One of the potentials that must be possessed by volleyball athletes is the mastery of basic technical skills in volleyball. The technique is a procedure that has been developed based on practice and aims to find a solution to a particular movement problem in the most economical and useful way (Beutelstahl, 2008). To develop the volleyball playing skills required, mastery of basic volleyball techniques is needed. The techniques in volleyball game consist of service, bottom passing and top passing, blocks, and smashes (Ahmadi, 2007). The basic techniques contained in the game of volleyball greatly affect one's skills in the game of volleyball.

Based on this explanation, this study aims to resolve the need for a volleyball passing practice model using games. Research and development that will be conducted by researchers aim to facilitate the trainer in conveying variations of the exercise which of course aims to achieve maximum training results.

METHODS

This research uses qualitative and quantitative approaches through research and development methods. The procedure uses the research and development model of Borg and Gall which consists of ten steps including (1) Preliminary study), (2) conducting research and information gathering (literature review, subject observation, preparation of subject matter report), (3) developing initial product design forms (preparation of teaching material, preparation of handbooks, and evaluation equipment), (4) design validation (initial evaluation), (5) design revision (in accordance with the results in the field during the pilot phase, (6) product Trial (6-12 subjects), (7) conduct product revision (based on suggestions and main field trial results), (8) trial usage with 30-100

subjects, (9) final product revision, (10) mass production (Making reports on products in journals, working with publishers who can distribute commercially) (Borg & Gall, 1983).

The research and development did at SMP N 1 Makassar, SMP N 3 Makassar, SMP N 13 Makassar, SMP N 24 Makassar, and SMP N 27 Makassar, Sulawesi Selatan. The process of collecting data used a questionnaire and interview. Data analysis techniques used qualitative and quantitative. Qualitative data analysis is taken along in the field, which is divided into three kinds of data reduction techniques, data display and drawing conclusions. While quantitative data analysis in the form of percentage descriptive analysis techniques. Besides that, judgment expert has done to assess the model.

RESULTS AND DISCUSSION

The data is given to (1) two trainers in the form of interview sheets, (2) conducting needs analysis with a questionnaire that is given to 20 subjects, (3) instruments regarding the appropriateness of products is given to one coaching person, three volleyball experts, one game expert, and one media expert, (4) small group trials totaling 12 subjects, (5) large group trials totaling 60 subjects, (6) product effectiveness testing totaling 60 experimental group subjects and 60 control group subjects. The following is a data presentation that used as a basis for the development of variations of games based model of volleyball passing practice.

Table 1. Summary of Research Findings.

| Steps | Findings |
|---|---|
| Preliminary studies | The experience as a volleyball player is around 14-15 years, but training in volleyball is only 3-4 years |
| a. Conducting a needs analysis by interviewing extracurricular coach in the volleyball court of SMP N 24 and SMP N 13 Makassar in August 2017 (n = 2) | The school ever is the 3rd winner in junior high school competition in Makasar in 2014 Champion in the 2015 Makassar City Volley Ball Competition The coach gains training experience as a player and gets from lecturing activities. The coach drills passing practise using by adjusting the basic abilities possessed by athletes. The coach applies variations of the passing practice such as pairing and independent drill. The coach has difficulty when drill passing practice such as errors position of the feet, hands, body and direction of the ball. |

| <p>b. Needs analysis of extracurricular participants (n = 20). Total of 17 questions.</p> <p>Developing Model Planning; Product design</p> | <p>Athletes need variations of training to help athletes better abilities in the future.</p> <p>The coach needs a reference material to practice passing over volleyball</p> <p>Based on the needs analysis results obtained 86.95% of athletes need variations of games based volleyball model of passing practice</p> <p>Design of a model is developed based on the needs analysis result that is taken from interview and questionnaire. It is from coach and peer partner.</p> <p>The initial design model produced 24 variations: 1) Point Flag, 2) Sodor Gobak, 3) Sodor Point Gobak, 4) Shifting Throwing, 5) Play Throwing Games, 6) Chains, 7) Ball</p> | <p>Model 1 Revision</p> | <p>1. Volleyball expert 4 Variation of practice need to be removed because it lacks the element of passing practice. 4 variations are: 1) Spinning Circle, 2) Bridge, 3) Friend's Finger and 4) Shaking Hand Avoid the type of game that does not prioritize movement. Use a game that can be the actual net, friends, cones, and so forth.</p> <p>Use a game that resembles moving the ball above your head.</p> |
|--|---|--|--|
| Steps | Findings | Steps | Findings |
| | <p>Chains, 7) Ball Control, 8) 4 Corner Passing, 9) Space 1, 10) Space 2, 11) Head, Shoulders, Knee, Legs, 12) Circular Pair, 13) Passing Bounce, 14) Reflections, Chases and Passings, 15) Forward-Backward, 16) Eagle & Chicken, 17) Zig-Zag Goals, 18) Random Passing, 19) Cooperation Passing, 20) Reverse Passing, 21) Rotating Circles, 22) Bridges, 23) Friend's Finger and 24) Shaking Hand</p> | | <p>Adjust the game selection according to the difficulty level.</p> <p>Adjust positions between players during execution.</p> <p>2. Coaching expert The implementation sequence must be clearer. The aim of the game is adjusted to the principle of practice and level of difficulty</p> <p>3. Game expert It is better to clarify the instructions of implementation and the rules of the game being carried out.</p> <p>The type of game must be according to need Division of groups adapted to the type of game</p> |
| <p>Validation from Expert</p> <p>1. The validation of the volleyball expert (n = 3) was carried out with a questionnaire instrument of 120 questions.</p> <p>2. Validation of training experts (n = 1) was carried out with a questionnaire instrument of 120 questions</p> <p>3. The validation of the game expert (n = 1) was carried out with a questionnaire instrument of 120 questions.</p> <p>4. Media expert validation (n = 1) was carried out with a questionnaire instrument of 20 question</p> | <p>The result data analysis obtained 70.6% for variation of volleyball passing practise is available to use.</p> <p>The result data analysis obtained 73.3% for variation of volleyball passing practise is available to use.</p> <p>The result data analysis obtained 73.2% for variation of volleyball passing practise is available to use.</p> <p>The result data analysis obtained 72.5% for variation of volleyball passing practise is available to use.</p> | <p>Small Group Trials (n = 12) with 80 instruments</p> | <p>4. Media expert In the cover, section uses different types of letters to focus the reader on the main topic Complete the back of the book On the back cover contains introductory material so that the author is at the very end of the page. Use fonts that are easy to read, try to draw images more interesting readers. A small group trial is obtained 80%, it is eligible is to use</p> |

| | |
|---|---|
| Model Revision Phase 2 | The model has to add the duration of the game and pays attention to the athlete's position when they play paired |
| Large group trials (n = 60) with 80 instruments | The trial results of large groups get 79.4% so that the Eligible Variations are used. |
| <i>Model Revision Phase 3</i> | <p><i>From a large group trial, it is obtained the substitute system between players in the game, and the difficulty of the game needs to be improved.</i></p> <p><i>The final design produces 20 variations: 1) Point Flag, 2) Sodor Gobak, 3) Sodor Point Gobak, 4) Shifting Throwing, 5) Play Throwing Games, 6) Chains, 7) Ball Control, 8) 4 Corner Passing, 9) Space 1, 10) Space 2, 11) Head, Shoulders, Knee, Legs, 12) Circular Pair, 13) Passing Bounce, 14) Reflections, Chases and Passings, 15) Forward-Backward, 16) Eagle & Chicken, 17) Zig-Zag Goals, 18) Random Passing, 19) Cooperation Passing, and 20) Rewind Passing.</i></p> |
| <i>Effectiveness Test</i> | <p><i>The significance score for the experimental group data is 0.090, and the control group data is 0.065.</i></p> <p><i>This effectiveness test was carried out on the control group (n = 60) and the experimental group (n = 60) using a standard passing test on volleyball from Russel-Lange (Winarno, 2006)</i></p> <p><i>The value of $t = 10.971$, $df = 118$ and sig (2 tailed) or $p\text{-value} = 0.000 < 0.05$ or H_0 is rejected. Thus the proposed hypothesis is tested, then it can be concluded that the results of passing the experimental group are higher than the control group.</i></p> |

Initial product offerings the development of games based volleyball passing practice include: (1) Point Flag Games, (2) Sodor Gobak Games, (3) Sodor Point Gobak Games, (4) Shifting Throwing Games, (5) Ball Control Games, (6) 4 Corner Passing Games, (7) Space 1 Games, (8) Space 2 Games, (9) Head Games, (10) Shoulders, Knee, Legs, (11) Couple Circular Games, (12) Passing Bounce Games, (13) Bounce, Chase and Passing Games, (14) Forward-Backwards Games, (15) Eagle & Chicken Games, (16) Zig-Zag Gol Games, (17) Random Passing Games, (18) Cooperation Passing Games, (19) Playback Passing Games, (20) Play Throwing Games, (21) Spinning Circle Games, (22) Bridge Games, (23) Friends Finger Games, and (24) Shaking Hand Games.

Based on the results of the validation carried out by 3 volleyball experts with a total of 120 questions, the overall results of this game based passing exercise model has met the standards and are declared suitable for use. But it still needs improvement to repair the product design model

of passing exercises for game-based volleyball. The following are suggestions for revision, namely: (1) it revised the distance between players, (2) implementation must be detailed and clear, (3) adjust the equipment and facilities used, (4) the product must pay attention the principle of practice, 5) variations must pay attention to the truth of the passing motion, 6) 4 variations of the game that are declared unfit and do not meet the elements of passing over: 1) Spinning Circle, 2) Bridge, 3) Friend's Finger and 4) Shaking Hand needs to be removed.

The second phase of the revision was carried out after a small group trial and input from extracurricular participants when carrying out the small group trial. The results of small group trials can be seen that the product development games based model volleyball passing exercise needs to increase the duration of the game and pay attention to the athlete's position when they play paired games. It requires time to perform repetition of movements passing over and improving the distance between players.

The third phase of the revision was carried out after a large group trial. The data obtained is based on field notes used to carry out the third stage of revision. Based on the results of trials of large groups of passing exercises for this game, there is nothing that needs to be revised, all aspects are feasible to use, but there are some inputs about substitutions between players and for the next stage the difficulty of the game needs to be improved. In this final revision, the final product is obtained as follows: 1) Point Flag, 2) Sodor Gobak, 3) Sodor Point Gobak, 4) Shifting Throwing, 5) Play Throwing Games, 6) Chain, 7) Ball Control, 8) 4 Corner Passings, 9) Space 1, 10) Space 2, 11) Head, Shoulders, Knee, Legs, 12) Circular Pair, 13) Passing Bounce, 14) Reflections, Chases and Passings, 15) Forward and Backward, 16) Eagle & Chicken, 17) Zig-Zag Gol, 18) Random Passing, 19) Cooperation Passing and 20) Reverse Passing.

Supporting factors in the application of this passing exercise model include: (1) extracurricular activities have been widely carried out in Makassar City schools, it is very likely to apply the training model carried out in volleyball extracurricular activities, (2) in Makassar City, it has been many volleyball competitions held for student-level from government, 3) volleyball activities have also been under the auspices of KONI, 4) management of coaching and development of basic passing skills for extracurricular participants in several schools has not been well managed.

Some inhibiting factors in the application

of passing volleyball training for extracurricular participants include: (1) limitations on the availability of advice and infrastructure in schools to carry out volleyball extracurricular activities, 2) limited funds budgeted to support extracurricular activities, 3) limited professional trainer resources still minimal.

There are advantages of this research include producing a guidebook, so that the book can be used as reference material and as a guideline to increase the effectiveness of the passing exercise process for volleyball. The disadvantages are product models for passing exercise on volleyball are variations in training only for the basic skills of passing. Whereas in the game of volleyball, there are many other basic techniques including bottom passing, service, smash, block.

CONCLUSION

The results of analysis concluded that there are variations of games for volleyball of practice passing include: 1) Point Flag, 2) Sodor Gobak, 3) Sodor Point Gobak, 4) Shifting Throwing, 5) Play Throwing Games, 6) Chains, 7) Ball Control, 8) 4-Corner Passing, 9) Space 1, 10) Space 2, 11) Head, Shoulders, Knee, Legs, 12) Circular Pair, 13) Passing Bounce, 14) Reflections, Chasing and Passing, 15) Forward-Backward, 16) Eagle & Chicken, 17) Zig-Zag Goals, 18) Random Passing, 19) Cooperation Passing, and 20) Reverse Passing. The whole model has been tested on research subjects and validated by experts. This is based on factors of convenience, attractiveness, usefulness and security. The researcher recommends a number of suggestions, namely: (1) The product development game-based model of volleyball passing practice for junior high school extracurricular participants requires intensive and continuous study and is applied to a wider scope of activities with diverse characteristics to obtain feedback for product improvement; (2) the trial subjects involved in the evaluation and testing activities need to be reproduced by involving many experts such as trainers, volleyball teachers, academics and students who act as subjects; (3) further assessment and development needs to be done regarding variations adjusted for age levels. The expectation of the developed model will be more varied, innovative, effective and more efficient if it applied in extracurricular participants or more broadly

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