PROCEEDING
OF
THE 3rd INTERNATIONAL SEMINAR
ON SPORT AND PHYSICAL EDUCATION
"Striving For World Sport Achievements Through Sport and Physical Education"
Faculty of Sport Science, Yogyakarta State University
Yogyakarta, May 24, 2011

In Cooperation

Yogyakarta State University
ISORI DIY
Ministry of Youth and Sports
Republic of Indonesia
PREFACE

Assalamu'alaikum warahmatullahi wabarakatuh

May first we made our highest praise and thank to the Mighty God, Allah SWT, for His blass for all of Us. The 3rd International Seminar on Sport and Physical Education can be held in the Faculty of Sport Science in line with the 47th Yogyakarta State University Anniversary in 2011 by many solidarity, harmony and high enthusiasm among participants.

Through this International seminar with the general theme "striving for world achievements through sport and physical education", I would like to deliver our highest respect and appreciation to our honorable guests, especially to the key speakers from Northern Colorado University, Prof. Melissa Anne Parker, P.h.D., and Prof. Dr. Mohd Saleh Aman, P.h.D., from University of Malaya Malaysia. Let me also give my highest gratitude to Prof. Dr. Djoko Pekik Irianto, M.Kes., as the Deputy of Improvements of Sport Achievement from The Ministry of Youth and Sports, The Republic of Indonesia. In the end, I would like to convey my deep appreciation to all participants from all around the nation and foreign countries.

Listed by the importance of bringing more educated and civilize for better future, let's join and blend together in this International seminar on sport and physical education.

Wassalamu'alaikum warahmatullahi wabarakatuh

Yogyakarta, May 24, 2011
Faculty of Sport Science
Dean,

Surya Suberyanto, M.Kes.
NIP 196503011990011001

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Assalaamu'alaikum wr wb.

Good Morning,

The honorable speakers,
1. Prof. Melissa Parker, Ph.D
2. Prof. Moh Aman Shaleh, Ph.D
3. Mr. Agus Mahendra, MA as an Asdep, Iptkor,

Mr/Mrs. Vice Rectors, Deans, Director, and Head of Research and Community Services Institute.

Mr. Vice Dean and Head of Department,
The distinguished guests and Journalists
Ladies and Gentlemen,

First of all, on behalf of the president of Yogyakarta State University (YSU), I would like to express my great thank to God (Allah swt) who gives us very good opportunities and health, so that we can join this very important international Seminar on Sport and Physical Education. I do hope that this international seminar can inspire us, especially in developing sports science and practices and may Allah swt always bless us. Amien.

Secondly, it is my great honor to express my warm welcoming to all audiences, especially the distinguished speakers, Prof. Melissa Parker, Ph.D. (UNC, USA), Prof. Moh Aman Shaleh, Ph.D. (UM, Malaysia), and Mr. Agus Mahendra, MA as an Asdep, Iptkor, Ministry of Youth and Sports, who will share with us up to date knowledge and valuable experiences.

Thirdly, I also want to thank so much to also all presenters for pararell session who are joining this international seminar for sharing all issues we are concern. I absolutely expect that this forum will be beneficial for all of us, not only as experts, educator/trainers, but also as practitioners.

Finally, I would like to thank to the audiences who are interested in participating this very important meeting. I do hope that all audiences can take more advantages, then implement some related ideas in improving the quality of sport and physical education. Beside that I am also witting to thank to all member organizing committee, who spent much time in preparing, organizing, and controlling this event. I absolutely hope that they are able to gain more academic and managerial advantages.
Ladies and gentlemen,

It seems to me that the theme of this International seminar is very interesting and important, because we can have some good point to be addressed, such as:

1. Everyone has potential to develop optimally, including kinesthetic intelligence and sports. Because of the potential, he/she is eager to achieve a champion, not only the national champion, but also the regional Asian and also world champion.

2. Being a champion is natural intention and dream. Allah said in the Al-Quran, “Fastabiqul khairat” in another article, “Kam min fiatun qalillatin ghalabat fi- atan katsiriatan bi idznillah”. We have to be ready to compete to achieve fairly and sportively the champion.

3. I realize that to reach the sport champion in the recent time, we strongly need to optimal utilization of the science and technology. So that why the trainer/educators and athletes who want to achieve the optimal technology appropriately.

4. To facilitate the athlete to strive the world achievement, it seems to me that we have to stick with and to follow the International rule as discipline as possible, and also as early as possible.

5. To gain the world achievement, we need to internalize the honesty to every athlete, so that they can play fairly and sportively with easy.

6. To accelerate the effort to reach the world champion, it is strongly needed the related research, so that the training established not by feeling but by the empirical fact.

Ladies and gentlemen,

Finally, let me express my gratitude to all audiences, especially the honorable speakers and the distinguished guests, for paying attention. I absolutely hope that this meeting will run well and make more benefits for the people and community. Finally, may I officially declare this International Seminar by saying “Bismillahir rahmaanir rahim”, may Allah swt always bless us. Amien.

Wabiilahit taufiq wal hidaayah
Wassalamu’alaikum wr wb
Rektor,

Rochmat Wahab
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MODEL OF DEVELOPMENTAL BALL MADE FROM A DRY WASTE AS LEARNING TOOLS FOR PHYSICAL EDUCATION IN JUNIOR HIGH SCHOOL

By:
Adi Purwanto and Ahmad Rithaudin
Yogyakarta State University

ABSTRACT
This study aims to develop a ball of dry waste (made from raw pieces of paper and pulp saws) as a learning tool for Physical Education in handball game for Junior High School (SMP).
The methods used in this study are research and development (R & D). As for steps in the research and development of hand-made balls are as follows: Analysis, Design, Implementation and Testing.
The final product of this ball has a weight of 477 grams, and 480 grams with a diameter of 46 cm, and 46 cm. While most extensive webbing 1 x 2.5 cm and the smallest webbing 0.5 x 0.5 cm. The color of the ball using a plastic is sunny. From the results of these studies concluded that the ball of dry waste especially saws made from raw pulp and a very worthy piece of paper used as a learning tool for Physical Education in handball game for Junior High School (SMP).

Keywords: Football Development, Learning Physical Education, Junior High School (SMP).

Introduction
Physical Education is a process of learning through physical activities designed to improve physical fitness, develop motor skills, knowledge, healthy living and active, sportsmanship and emotional intelligence (Wawan S. Suheman, 2008:17). Physical Education as an integral part of education has a unique educational goal is to use "motion" as the media to students. In accordance with the Regulation of the Minister of National Education (the game) No. 22 in 2006 the background of SK-RD specifically stated that the aim of Physical Education in schools so that learners have 7 abilities, namely the following: develop self-management skills, enhance physical growth and psychological development of a better, improve the ability and motor skills foundation, laid the foundation of strong moral character, develop sportsmanship, honesty, discipline, responsibility, cooperation, and democratic self-confidence, develop skills to maintain safety of self, others and the environment as well as understand the concept of physical activity and exercise in a clean environment.

However, conditions in the field of Physical Education in educational institutions has not led to the goal of Physical Education and sometimes completely ruled out, for example: according to Giriwijoyo in Depdiknas (2008:8) in the days before the final examination of a level of education, then the Physical Education abolished on the grounds that the students in learning to deal with the final exam "is not disturbed."

Physical Education Teachers in the management of the learning process of Physical Education are still accustomed to warming-up, providing technique and continued with the game so that students can guess the lesson to be delivered teacher. Also in terms of facilities / equipment for Physical Education lessons are still lacking, based on the observations of researchers in schools around the area researchers, Physical Education learning process takes place in one class there was only one ball, kick the ball, meaning it can be concluded that school has only one ball in particular for football game. According to the regulations of the Minister of National Education Republic of Indonesia number 24 year 2007 regarding the standard of facilities and infrastructure for...
junior high school/Madrasah Tsanawiyah (SMP / MTs) must have a minimum of six (6) ball to one type of game. As for teaching materials in secondary schools curriculum, the percentage game more material than other materials.

The game is a popular student teaching materials and identical with the ball. The availability of the identical ball with the game in schools still do not meet the minimum standards set by the regulations of the Ministry of National Education Republic of Indonesia about the standard of facilities and infrastructure for middle school. Therefore, the need for a cheap alternative ball, economical and practical but still meet the requirements for Physical Education as a learning tool that is safe, attractive, encourage students to move, according to the needs and goals as well as fun and challenging. In our neighborhood dry waste a lot of easily available and economical, and has not been used as a means of learning of Physical Education. Dry wastes in question include a piece of paper that are not used, pieces of fabric (patchwork), pulp saws, straw, coconut fiber, dried banana bark, and dry wastes other. Therefore, the researchers intend to develop an artificial ball can be made by teachers and students, especially the raw material from waste paper, waste straw, raffia and plastic crinkle in the hope that the ball needs as a learning tool for Physical Education are met.

With these wastes can create various kinds of ball games for a variety of materials, because of time constraints, costs, and the minds of researchers in particular will only make the ball game ball for handball. Researchers chose handball game because of the nature of passing more than dribble, the nature of the game is tailored to the nature of the development which the ball can not bounce, and in addition the handball game is easily modified in terms of rules and ingredients. The main raw materials will researchers use a researcher also limit, which only use waste paper and pulp saws, the two were selected because of the availability of waste in residential areas around more easily researchers can. The ball is expected to develop outcome learning tool for Physical Education in the form of a ball can be met and objectives of Physical Education can be achieved through one of the handball game. Based on feasibility in this problem then the formulation of the problem in this research is, "How does model development ball of dry waste in particular made from raw pieces of paper and pulp saws as a learning tool for Physical Education in handball game for Junior High School (SMP)?"

Scope Of Games In The Curriculum

Games and sports is teaching materials that the first rank and the percentage of learning more in curriculum. The following basic standards of competency and competency for junior high schools based Education Unit Level Curriculum (KTSP):

Table 1. National Physical Education Curriculum Standard

<table>
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<th>Standar Kompetensi</th>
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<td>Practicing the basic techniques of games and sports and values contained therein.</td>
<td>Practicing the basic techniques of one of the game and great ball team sport continued with good coordination and cooperation values, tolerance, confidence, courage, respect for opponents, willing to various places and equipment **</td>
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From the above table can be seen that this competency standard requires students to be able to master the various games and sports. So this competency standard requires a lot of time allocation in the learning process.

Ball Game In Terms Of Type

Games and sport by Belka in Bahagia and Suherman (Depdiknas, 2000: 22-30) classified into five, namely: (1) Tag Game, (2) target Games, (3) Nat and Wall Games, (4) Inovation Games, (5) Fielding Games. Tag Games
is a form of strategy game simple but very useful to develop the basics of the strategy. The purpose of this game are moving, changing direction, and deceive. Target games are a form of target accuracy game of objects on the target. The purpose of this game is the accuracy of the delivery of objects at the target. The game targets eg bowling, golf, darts, hitting, kicking, and throwing the ball on target. Net and wall games is a game that involves the ability to move and control objects owned hard for the opponent or the opponent hard back to the wall (eg squash) or over the net (such as tennis and volleyball), Invation games, This game focuses more attention on the control object in a particular area. This game includes a simple game like the game get the ball (for example: a ball played by three players one player trying to retrieve the ball or touching the opponent is the ball = one-two). Football is the example of this games. Fielding games, characteristics of this game is usually an object is delivered to a particular place or region and the server tried to run to a certain place and may even continue to run until the return to catcher was in before the player can catch the ball and again to a certain place. This game can be simplified by reducing the skill needed, for example, done with skill hit and run or combined with a touch game. Examples of these types of games are the soft-ball, base ball, rounders, football fuel.

Handball is a team game that uses ball as a tool. The ball is played by using one or two hands. It may be in throwing the ball, bounce off, or fired. The purpose of this game is to put as many balls into the opponent's goal, and keep yourself for not conceding the goal the ball from the opposing team. The function of the ball in a handball game similar to basketball games, which is used to dribble, passing, and shooting. However, this modification is shown in a special ball for passing and shooting. Based on the number of handball players divided into two kinds of games, namely: hand ball with 11 players and handball players with 7. According to Warndra (2000:105) standard ball must have the following criteria: 1) The ball must be spherical, the exterior is made of leather and the insode of the bubble gum, 2) a single color and not too hard, 3) balls to the game and the senior men junior ball weight between 425-475 grams and 58-66 cm circle, while for senior and junior women, boys and girls youth soccer weight between 325-400 grams and 54-56 cm circle.

According to Rahman, et al. (2005:10) mentions that the ball out to young men aged 12-16 years and girls aged over 14 years of the circle of the ball is 54-56 cm and the lightest weight is 325-400 grams. Based on the above explanation it can be concluded that the standard size hand ball to Junior High School (SMP) has the ball 54-56 cm circle and the lightest weight 325-400 grams.

**Modification Principle In Learning Physical Education**

Modifications in the learning of Physical Education can be associated with learning objectives from the start destination of the lowest until the highest goal. Modified learning materials can be done by dividing the objective material into several components, according to Bahagia and Suherman (2000:2-3) can be divided into three components, namely:

1) The purpose of the expansion, the purpose of the expansion is the goal of learning a greater emphasis on acquiring knowledge and ability to shape or form of skills that can be learned without attention to aspects of efficiency and effectiveness.

2) The purpose of smoothing, the purpose of smoothing is the goal of learning a greater emphasis on acquiring knowledge and ability to perform efficient motion or a learned skill.

3) The purpose of the application, the purpose of the application of learning objectives which means more emphasis on knowledge acquisition and effectiveness of motion or ability to perform skills learned.

Modification is an activity to analyze and develop course materials in a way to guide the form of potential learning activities that can facilitate students in learning. This method is to guide, direct, and to teach learners of which has not yet become able, from a previous lower level to a higher level. Therefore, in modifying games and sports should be based on the principles of modification, the following are the principles of modification by Bahagia and Suherman (2000:16-19): 1) To encourage maximum participation, 2) Noting the safety (Safety), 3)
Teaching effectiveness and efficiency of motion, 4) Meeting the demands of different children, 5) In accordance with the growth and development of children, 6) In accordance with the growth and development of children, 7) Strengthen the skills that have been studied previously, 8) Teaching a player who bright, and 9) Improving the emotional and social development.

Research Method

The method used in this study using the Research and Development. Methods of research and development is the research method used to produce certain products, and test the effectiveness of the product (Sugiyono, 2007:297). Here is a picture of research methods designed to facilitate the development of soccer as a learning tool for Physical Education High School.

Picture 1. Research and development diagram

Results

The initial product produced in the form of a ball of raw materials, especially dry waste sawdust and scrap of paper pulp as a learning tool for Physical Education in handball game for Junior High School (SMP). This is the step of making product:
a. Prepare a piece of waste paper and pulp into small saws, prepare a medium-size bag of old crackle / big flour, have a string of buildings, and prepare a fruit scissors.
b. Paper and pulp waste straw crumpled ball shaped, size, as needed.
c. After spherical then wrapped neatly with former crackle bag of four to five pieces so as not to corrupt absolutely.
d. The next step ball of yarn woven using the building.
e. Finishing phase, namely the ball trimmed to make it look more attractive.

![Picture 2. Initial product](image)

The ball of this initial product has a weight 471 grams, 573 grams and 903 grams with a diameter of 47 cm, 51 cm and 54 cm. While most extensive webbing 4 x 4 cm and the smallest braid 1 x 1.5 cm. After a few steps above completed the final results in the form of a ball of raw materials, especially dry waste sawdust and scrap of paper pulp as a learning tool for Physical Education in handball game for Junior High School (SMP).

![Picture 3. final product](image)

The final product of this ball has a weight of 477 grams, and 480 grams with a diameter of 46 cm, and 46 cm. While most extensive webbing 1 x 2.5 cm and the smallest webbing 0.5 x 0.5 cm. The color of the ball using a plastic crackle sunny.

**Feasibility Of Physical Education Learning Tools**

Assessment Results Experts on the ball as a Learning Tool for Physical Education Results assessment 3 experts on the ball as a learning tool is divided into 3 physical education assessment results, namely:

a. Results Assessment Test, Assessment questionnaires to test experts I reviewed from the aspect's of a) success, b) easy and cheap, c) interesting d) spur moves, e) in accordance with curriculum needs and characteristics of junior high school students, f) in accordance with the goals, g) is not easily damaged, h) according to the environment. Percentage of 3 experts to the assessment results are presented in the table below. From the assessment it can be concluded that the three experts had agreed that the resulting product. This can be seen from the high percentage of approval that reached 98.41%, while the average student assessment scores in large-scale empirical test is 63.75%.
Discussion

The final product of this research is the Research and Development produced a ball of raw materials, especially dry waste sawdust and scrap of paper pulp as a learning tool for Physical Education in handball game for Junior High School (SMP). Of the several stages of design development tool, there are obstacles encountered namely; forming a round ball for a ball resembling a standard, each woven plaid could not identical, and the base of plastic to wrap the ball less flat.

Test the feasibility of this study obtained the ball as a learning tool for Physical Education in handball game for Junior High School (SMP), a very decent percentage of the value of 3 expert appraiser of 98.41%, and from students at 83.75%. The final product of this ball has a weight of 477 grams, and 480 grams with a diameter of 46 cm, and 49 cm. While most extensive webbing 1 x 2.5 cm and the smallest webbing 0.5 x 0.5 cm. The color of the ball using a plastic crackle sunny. From the results of these studies concluded that the ball of dry waste especially saws made from raw pulp and a very worthy piece of paper used as a learning tool for Physical Education in handball game for Junior High School (SMP).

From the feasibility test is necessary Adiaia follow this form of use of the ball on time delivery of content handball game in Physical Education so that the material handball game can disampikan without having to use a standard ball. Nevertheless there are still some shortcomings of the previous plan that the ball is not soft and smooth. The advantages of this learning tool than the standard ball is: 1) the ball can be made by teachers and students, 2) Raw material is easily available and cheap, 3) is interesting, because the color of the ball can be selected in accordance with the desire, 4) No easily damaged, 5) in accordance with the purpose of the game and, 6) according to the environment, because it is made from waste materials that are environmentally friendly.

CONCLUSION

From this research study to obtain a percentage value of 3 expert appraiser of 98.41%, and from students at 83.75%. The final product of this ball has a weight of 477 grams, and 480 grams with a diameter of 46 cm, and 49 cm. While most extensive webbing 1 x 2.5 cm and the smallest webbing 0.5 x 0.5 cm. The color of the ball using a plastic crackle sunny. From the results of these studies concluded that the ball of dry waste especially saws made from raw pulp and a very worthy piece of paper used as an alternative learning tool for Physical Education in handball game for Junior High School (SMP).

DAFTAR PUSTAKA


