

Improving Students` Badminton Smash Skill Through Game Modifications

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Abstract—This study aims to determine the improvement of the results of badminton smash training through game modification in extracurricular students of Junior High School 4 South Sinjai. The subjects in this study were 25 students. The research method used is the action research with the design of kemmis and McTaggart. This study consists of two cycles which each cycle consists of eight meetings. The test is done at the end of each meeting. The test is a badminton smash test. The results of the study of 20 students showed the results of a complete pre-cycle test of 6 students. Students increased in cycle I as many as 14 students and continue to increase in cycle II as many as 18 students. Therefore, in the second cycle of success criteria has been achieved then the researchers do not need to take action on the next cycle. Thus it can be concluded that the exercise by using game modification can improve the result of badminton smash skills on the extracurricular students of Junior High School 4 South Sinjai-Sinjai regency.

Keywords—Badminton Smash Skill, Game Modification

I. INTRODUCTION

Physical Education is an educational process that promotes development through movement activities that promote the development of Indonesian human resources. Essentially physical education is an educational process that utilizes physical activity to produce holistic changes in the quality of individuals physically, mentally and emotionally. Through physical education, people may fathom the values and habits of healthy lifestyles and stimulate mental and physical growth in balance, because of the physical education, sports and health requires competent and professional teachers who are expected to distribute the aspects contained in physical education, sports and health.

Schools often hold extracurricular activities to improve the achievement of students specifically in the field of sports and to develop their talents in certain sports branches. This activity is a non-formal activity but the school is responsible for implementing it in the activity management, including conducting a trainer or determining a teacher as a coach or a constructor who is responsible in running the training program. One of the sports that are often held in school extracurricular is badminton because many students are interested in the sport.

Smash is a basic technique that quite difficult for students to do, because smash requires prior skills such as physical training, coordinated technical training and so on. In the implementation of smash in badminton training, there are various obstacles and problems including insufficient school equipments and the quality of educators or trainers who are less creative.

From the observation of extracurricular researchers at Sinjai Selatan 4 State Junior High School, there are several

obstacles found in the Sinjai district that the students lack the ability to increase the capability to play the badminton which was hampered by various things such as problems in facilities and infrastructures, inappropriate training program and unsupportive physical condition.

During the learning activities, there are many things that students experienced and encountered. They experienced new situations such as the environmental changes, new friends, fun social atmosphere and also discipline, cooperation and responsibility which sometimes bind the students. Learning activities at school are sometimes long enough until late afternoon and the learning process is monotonous, boring, and difficult. This may affect students' interest in participating extracurricular activities because there are only little time left. Therefore, teachers or trainers need a new breakthrough in developing strategies and training methods or extracurricular learning.

Modification is an innovation that is made so that there are complex changes occur. These changes can be in the form of contents, functions and ways of using the benefits without completely eliminating the original characteristics. The implementation of game modifications is aimed to solve the problems in the badminton game, especially in smash techniques. These modifications are expected to solve problems that have occurred during learning. Researchers modify the game by modifying the rules of badminton games by lowering the size of the net, reducing the size of the field, modifying tools and games in learning process.

A. Badminton Smash Skills

Ahmad Dar Hilal et al. explained that: "Badminton is a game of two or four players using lightweight rackets and a shuttle cock [1]. Badminton is a racket sport; it is a game requiring quick sudden movements and fast reaction". Badminton smash is one of the most important techniques in badminton games because a smash is one sharp stroke down through the net which aims to get as many points as possible to achieve victory (strike hit). According Valdecabres et, al., [2] badminton is a game consisting in hitting the shuttlecock across the other side of the court over the net, trying to send it to the area in the opponent's side where it is hardest for them to hit it back. Therefore, the main goal of the smash is to overpower the opponent. Smash is a form of hard stroke which is often used in badminton games. The character of this stroke is hard and the speed of the Shuttlecock is high. The results of a study conducted by Gurmeet Singh and Yogesh show that on the game of Badminton shows that badminton players need to have a certain level of muscular strength, endurance, agility, flexibility and athleticism [3]. Good elastic strength of the arm is needed. Elastic strength is a type of strength in which the muscles can move quickly against a resistance, which has a combination of contraction

speed and the motion speed is called power [4]. The exercise that can develop elastic strength is resistance exercise, in which we have to push, pull, lift, and hold weight. A smash is an overhead stroke that relies on the strength and speed of the arm and wrist stroke so that the ball swoops down sharply. Both straight smash and cross smash can be hit with the same swing. According to the Tumin Atmadi, the smash can be divided into three parts, which are Forehand/Backhand Smash, Forehand/Backhand Full-smash, and Forehand/Backhand Half-smash.

According to James Pool, the forehand smash procedures are as follows. (a) Hit the shuttlecock when it is in front of your body, and do it with arms stretched out, (b) During the contact, the wrist and forearm must rotate very quickly, (c) During the contact, the racket area is in flat position pointing down, (d) Hit the shuttlecock hard, (e) The sharp falling angle is more important than the speed of the shuttlecock, (f) Don't smash from the three quarters of your field because the shuttlecock speed decreases very quickly over long distances. Good smash is characterized by good technical improvements, when the shuttlecock and racket make a good impact, the smash technique will be more meaningful. Therefore the improvement of the smash technique with a good method can improve the stages movement of the smash.

Every player gradually must master the smash techniques perfectly. It has many benefits to increase the quality of the game. Aksan explained several things that need to be considered in doing badminton smash movements: (1) Get used to move quickly to take the right position, (2) Pay attention to the grip of the racket, (3) The gesture of the body must remain flexible, both knees are bent and focus on the shuttlecock, (4) The contact of the racket and shuttlecock over the head is by straightening the arm to reach the shuttlecock as high as possible and using wrist power when hitting it. (5) The end of the stroke movement is by moving the perfect racket swing to the front of the body [5].

According to Zhao Zhang the overhead smash is commonly divided into three phases for analytic and instructional purposes: preparation, acceleration and follow through [6].

II. METHODS

The method used in this research is action research. Action research is a form of reflective research conducted by participants in social situations to improve reasoning and righteousness of their educational and social practices. In this study, researchers act as a planner, implementer, and originator of ideas on problems faced and solve the problem through action. It can be explained that a cycle is followed by a systematic finding and a reflective process, which tend to be participative and determined by the implementer.

The action research model used in this study is the Kemmis and McTaggart model. This model is considered to be suitable with the research which emphasizes only one problem.

This research is an application of game modifications as an exercise or learning improvement which is followed by a classroom action study through several cycles. The form of action research is chosen based on the premise that junior high school teachers are educational practitioners who are able to identify learning problems but lack of the ability to

solve problems especially related to badminton games learning. For this reason, the researchers intended to conduct action research in collaboration with the practitioner teachers, collaboration teachers, and other subjects-teachers to increase the ability of students in badminton games. The object of this research is the application of the game modifications of badminton smash training which is expected to be able to improve accurate smash skills.

The research design used in this study is the Kemmis and McTaggart model, in the form of one cycle or activity that includes the design stages in each cycle which are: (1) Planning, (2) Acting, (3) Observing, (4) Reflecting, which need a revision of planning on a repeat cycle if it is still needed [4].

This research was held at Sinjai-Selatan 4 junior High School, Tellulimpoe Sub-district, Sinjai District, South Sulawesi Province. The stages in this study include collecting data of badminton smash skills, by referring to the badminton smash skills test.

This research was conducted throughout 8 weeks with 2 meetings each week; therefore the total meetings are 16 meetings according to the schedule of badminton curricular activities at Sinjai-Selatan 4 Junior High School. The subject of this study was 20 students of Sinjai-Selatan 4 Junior High School that participated in badminton extracurricular activity.

A. Action plan

1) Initial observation

The activities carried out in this initial observation are:

- a. determining the place of research and the problem under study
- b. arranging permit
- c. visiting the place of research,
- d. collecting initial information about the conditions of 4 Junior High School Sinjai-South Sinjai District badminton game extracurricular learning activities.

2) Planning

In planning includes several activities which are:

- a. determining competency target,
- b. designing learning process in cycles one and two,
- c. preparing cycle one test tools for badminton smash and,
- d. Making cycle one and cycle two learning schedules.

3) Implementation of actions

Observation was held before the implementation of the learning process or training of badminton games in the field. The implementation of the first cycle was conducted throughout eight meetings. The follow-up of the first cycle learning process was to identify the strengths and weaknesses of the learning process and result. The result was analyzed for the second cycle planning benchmarks.

4) Reflection

Reflection was done by analyzing the results of the action which are the differences in student learning outcomes before and after the action. Furthermore, the researchers also assessed the success and failure as a preparation for further action.

5) Assessment

The final assessment of the learning outcomes of badminton games was done by using the same instrument

with the cycle one smash learning skill test. This was conducted to find out the differences that occur.

III. RESULT AND DISCUSSION

Before carrying out the action, the researcher also conducted initial data collection (pre-cycle) research. It was aimed to find out the initial conditions of the smash skills ability of extra-curricular students of Sinjai-Selatan 4 Junior High School.

From the results of the data retrieval in the cycles as stated in the table above, as many as 8 students scored below 60, 6 students received enough score (60-74), 6 students received good score (75-89) and there were no students who scored above 90, so it can be concluded that as many as 14 students (60.00%) have not been able to reach the minimum completeness limit, which is 75.00. Students who have reached the minimum completeness limit were 6 students (30.00%).

A. Test Results in the Final Cycle

The test result in the final cycle was the data exposure of the smash skills test results conducted by researchers and collaborators. From the results of the application of the badminton game modifications, it can be said that it can improve badminton smash skills of extracurricular students at Sinjai-Selatan 4 Junior High School.

Based on the results of the test above, it can be concluded that there are students who have not reached the minimum completeness criteria limit of 75.00 that is as many as 2 students with a percentage of (10.00%) students, while students who have reached the completeness criteria limit are 21 students that is equal to (84.00%).

For more details, the exhaustiveness of the extracurricular students at Sinjai-Selatan 4 Junior High School can be seen in the following diagram:

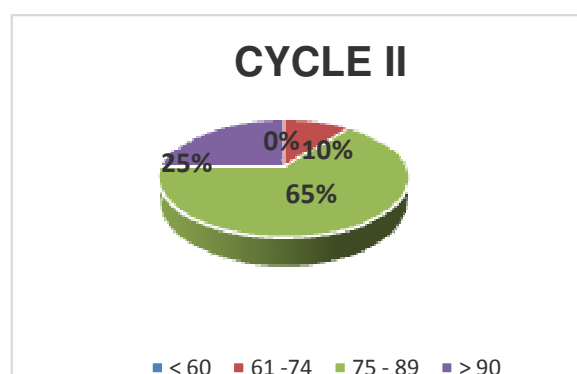


Fig. 1.
Distribution Diagram of the Badminton Smash Skill Learning Cycle II

Based on the picture above, the instrument test results of badminton smash skills can be analyzed that there are differences in a consistent manner of the students smash skills movements by using game modifications from the first to the final meetings which is the eighth meeting in cycle II. Students' improvements showed in the initial position when waiting for the arrival of the shuttlecock, the foot position when it support/thrust, the position of the body when jumping, the position of the hand or the racket and landing position. Based on the results of the tests in the second cycle, from the total number of students who took part in badminton extracurricular activities, which were 20 students, 18 students

were able to perform badminton smash movements well even some of them were able to perform extremely well. While there are 2 students who took part in badminton extracurricular activities that have not been able to perform the smash movement well but have already improved. Based on these results, the success rate of students who take part in extracurricular activities are 90.00% students performed the smash well through the badminton extracurricular activities at Sinjai-Selatan 4 Junior High School using badminton game modifications. From the results above it can be concluded that the action will not be continued to the next cycle because the achievement of students that performed well in badminton smash skills is above 85%.

The results of badminton smash skills practice on extracurricular students at Sinjai-Selatan 4 Junior High School were good in general because the percentage of completeness of the results of the badminton smash skills practice in cycle I is 70.00%, and the students who have not completed the results of the training were only 6 students because they have not reached the minimum completeness criteria value of 75.00. In the second cycle, the percentage of completeness of badminton smash skills learning outcomes significantly increased to 90.00% and the students who have not completed the requirement value only 2 students. Therefore, there was an increase of 20.00% in the cycle II or it can be concluded that there were a significant improvement after being given treatment in the form of application of badminton smash game modifications for 2 cycles or 16 meetings.

According to the researchers and collaborators, the research were stopped here and did not proceed to the next cycle because the problems were answered through the badminton smash games modifications, which could improve the results of the badminton smash skills for extracurricular students at Sinjai-Selatan 4 Junior High School. After completing the training during cycle I and cycle II, the collaborator expresses the observations during the training process to the researcher, in the form of quantitative figures which can be compared between the cycle I and cycle II. In the observation during the exercise took place in the cycle I and cycle II, the collaborator expressed the observations during the exercise in the form of qualitative data comparing cycle I and cycle II.

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