



COMPILATION OF ABSTRACTS

4th INTERNATIONAL CONFERENCE ON SPORTS SCIENCE, HEALTH AND RECREATION (ICoSHR)

"The Role and Contributions of Sports and Health Science
in Enhancing Quality of Life to Encounter Industry 4.0"



*Auditorium Universitas Negeri Padang
November 13-14, 2018*



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PREFACE

As the Dean of Faculty of Sport Science Universitas Negeri Padang, I would like to welcome and congratulate to all speakers and participants of The 4th International Conference of Sport Science, Health and Recreation (ICoSHR) 2018 entitled "The Roles and Contributions of Sports and Health Science in Enhancing the Quality of Life to Encounter Industry 4.0". I hope this conference will be the milestone for better life and especially in sport. 4th ICoSHR is designed to updating and applying evidence-based practice in sports science, health and recreation aspects.

Congratulate to all of speakers: **Johan Pion, Ph.D** (HAN University), **Matthew Lantz Blaylock, Ph.D** (University Of Alabama, Brimingham), **Dr. Nguyen Tra Giang** (Institute Of Sport Science And Technology, University Of Sport Ho Chi Minh City, Vietnam), **Prof. Dr. Adang Suherman, M.A** (Universitas Pendidikan Indonesia), **Prof. Dr. Phil Yanuar Kiram** (Universitas Negeri Padang) and **Prof. Dr. Syafruddin, M.Pd** (Universitas Negeri Padang).

We hope the invited speakers of this conference can reduce the gaps between academicians and practitioners to get best output in the daily sport practices. Last but not least, we thank all the committee of 4th ICoSHR 2018 for their hard work in organizing this conference. Hopefully, conference will significantly contribute for the development of better Indonesia sports in the future.

Sincerely yours,

Dr. Zalfendi, M.Kes

Dean Faculty of Sport Science Universitas Negeri Padang

PREFACE

The 4th ICoSHRFI 2018 will provide a scientific assembly for participants to share and discuss, as well as to make conclusions about the roles and contributions of Sports Science and Health to improve quality of life to encounter the Fourth Industrial Revolution (Industry 4.0).

The 4th ICoSHRFI 2018 aims to accommodate outstanding ideas from researchers and graduate students of Sports Science Institutions, both National and International Institutions, to exchange and share information (experiences), studies, new ideas, research findings in accordance with our conference theme. Moreover, this conference provides opportunities for all participants to discuss about recent issues, theoretical method and practical in sports science, and also to make conclusions to improve quality of life in encountering the Industry 4.0.

In addition, all the papers are written in English. The presenters also use English to deliver their papers within the certain period of time set by the committee. All accepted papers will be published to the Scitepress Proceeding indexed by Scopus.

Furthermore, it is great pleasure to invite you to The 4th ICoSHRFI in order to share your experience and current research findings related to the field of Sports Science, Health and Recreation. It is honor for us to be with you at this conference and to have your valuable contributions related to the field of Sports Science, Health and Recreation and the quality of life in Fourth Industrial Revolution.

Thank you very much for members of committee and UNP for the great efforts. Well Done.

General Chair,

Prof. Dr. Gusril, M.Pd

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4th ICOSHR

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SPORT DERAJAT METHOD IN BASIC LEVEL TECHNIQUE OF TARUNG DERAJAT MARTIAL ART

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Abstract:

The problem of research is that the basic athlete's technical skills are still low. This study aims to reveal the effect of the exercise method of the circuit and the method of the exercise circuit of the sport derajat of the basic technical skills of the athlete Tarung Derajat martial art. The study design is quasi-experimental (*quasi experimental*). The study population all athletes Kurata III classification (green belt strip-2) amounted to 263 people, while the sample determined *cluster random sampling*, a total of 40 people. Instrument wear The basic technique skill test of sports martial arts Tarung Degrees, and data analysis using "t-test". RESULTS: (1) Method of playing sport derajat series a significant influence on the basic technical skills of athletes with 22.72, value, (2) Sport derajat Method of training regimen Tarung derajat have a significant influence on the basic technical skills of athletes with a value of 4,06, (3) method of playing sport derajat series more effective than the method of circuit training to improve the skills of the basic techniques of tarung derajat martial arts athletes fighting with, value 8.92.

Key Words: - Sport Derajat of Method, Tarung Derajat of Sports Training, Basic Athlete Technical Skills, and Tarung Derajat Martial Arts.

Introduction

Sports education is now increasingly believed by the public benefits. To that end, the curriculum of national schools both intra-curricular and curricular extra has set sporting objectives in addition to getting healthy physical and high achievers, as well as to achieve intelligent character (attitude). Sports coaching is done thoroughly, not only in schools but also clubs (clubs / clubs), government and private agencies are more popularly formulated.

Thus it is expected that sport memassal everywhere as a whole in all corners of the country in various sports, such as football, basketball, bolavoli, badminton, gymnastics, athletics and including "martial arts Tarung Degrees". This fact is actually the sport can be said to have achieved what is expected, but in terms of achievement of sports coaching has not been satisfactory, because it has not achieved what coveted by the Indonesian people over the years. There are several sports that have memassal and have achieved Asia and international, but not yet stable to maintain peak performance.

One of the goals of Sport Education in schools both intra and extra-curricular activities is to improve the physical fitness (*physical fitness*). Physical fitness is the basis for coaching toward the achievement of the top of a sport, as Ateng (2003) explains that physical fitness is complex because it contains many aspects of physical ability. This component is useful for students who participate actively in the coaching of one branch of sports achievement.

If one of the physical components is not fulfilled for physical fitness, then the resulting motion skills will become less meaningful, due to the emergence of an element of fatigue in the exercise. Fatigue causes decreased aspects of motion skills such as speed, coordination, precision and balance resulting in mistakes in movement (Syafuruddin, 2011: 79). Thus the motion potential shown by the students (athletes) is less established. Finally the achievements are difficult to obtain, therefore the physical component in the School / Club / Satlat program needs to be

of special concern.

According to Daniel (2010), that through the Sports Education one effort to improve the mental health of learners. The power of thought will improve and the joy can reduce the tension or stress and make the feeling of being cheerful always. Famous classic motto for human life is, *orandum est, Mensana in corpore sano* (hopefully, in a healthy body there is a healthy soul). Some of the benefits of exercise in mental healthy education to learners / athletes: (1) Exercise can reduce stress and increase feelings of happiness, (2) exercise can improve brain power, and (3) Exercise can improve self-confidence. For that sport activities can be reached by various forms of the game through learning the motion of sports skills such as (Sports Games Degrees which aims to improve the ability of athletes compete).

Basic athletic skills are low or less meaningful to get attention, because low basic motion skills will cause them less excited and less happy to play (sports) and ultimately they are less movement. If the athlete does not have a high passion for sports games (Sport Derajat), not necessarily improve their skills; For that basic skill needs to be had. All of these must be well trained and use the correct training method if achievement is to be achieved (Proceeds Serantau-6, 2013: 2753-2767).

If the teacher / coach understands the importance of the role of basic engineering skills to support physical activity in improving the skills for sports achievement, undoubtedly the potential of the basic motion possessed will be further enhanced. In addition, the method of delivery of sports learning is expected to contribute to improving athlete's movement skills. The method of sifting is the way used to present learning materials / exercises to athletes to enable them to gain potential basic engineering skills.

There are two kinds of methods operationalized in this research, namely: 1) The method of sporting a series of sport derajat, namely how to find basic engineering skills with the presentation of training materials to play the sport derajat of tarung derajat to the athlete as a whole from sports series of tarung derajat martial art, 2) Circuit Method Sports Derajat Training, which is how to find basic engineering skills by doing sport derajat technique training in part or part of the exercises done by being sorted into every part of the basic techniques that exist in doing the exercise on a series of sport derajat.

Until now very rarely research done in the field of Tarung Derajat martial arts, especially about learning methods that circuit play In Sport Derajat. In an effort to find the intersection to improve learning achievement in Training Unit (Satlat), the researcher conducting research in sports game of degree related to the learning method / training to the result of learning / practice of sports martial arts tarung derajat.

Materials & methods

This study used a quasi-experimental research methods (*quasi* experimental). The objective is to find out whether or not there is an effect of treatment between cause and effect between controlled variables (Suharto, et al, 2004: 38). This study is intended to see the effect of training results on the delivery of training materials using the method of playing sports drajat and by using the method of Sport Degrees exercise on the basic technique skills of Martial Arts Sports Athlete Tarung Derajat.

The population in this study is the male athletes Kurata three Tarung Derajat West Sumatra who trained in various Training Unit (Satlat) in West Sumatra as many as 263 people (Source: Main Coach of West Sumatra). Sampling was done by *cluster random sampling*, with particular consideration is Athlete Men's existing level Kurata three (green belt strip-2) 40 people kelompok methods circuit playing sport degrees practiced in Unit Exercise (Satlat) BLPP Bandar Buat Padang 40 persons of the Training Tarung derajat exercise circuit group who trained at UIN Imam Bonjol Padang Training Unit (Satlat). Technique of data analysis to see difference of influence of sport derajat exercise method is using t-test.

Results

1. First Hypothesis Testing

The results of the initial test (*pre-test*) basic technical skills training methods sport derajat athlete group play series (group A), with a sample of 20 people. The average value (*mean*) 54.53 out of all the number of sample values, median 54.30 and standard deviation (SD) of 3.05. The results of the final test (*post-test*) the value of the average (*mean*) 54.71 of all the total value of the sample, the median 54.38 and standard deviation (SD) of **3.10**. The results of Hypothesis testing are presented in Table 1 below:

Tabel 1 Summary of First Hypothesis Testing Results

Method A	Mean	SD	T _{count}	A	t _{table}	Test results	Information
Pre Test	54,53	3,05	2,57	0,05	2,093	signifikan	Ho is rejected
Post Test	54,71	3,10					Ha accepted

Based on Table 1 it can be seen that $T_{count} (2.57) > t_{table} (2,093)$. This means that the research hypothesis is acceptable. Thus it can be concluded that the exercise sport derajat method of exercise play a role to give a significant influence on the basic skills of combat sports martial arts tarung derajat. That is, there is a significant difference between the positive influence group circuit training method Playing sports derajat before treatment with after treatment of the learning achievement of the basic technical skills of athletes.

2. Second Hypothesis testing

The results of the initial test (*pre-test*) basic engineering skills of martial arts fighting Tarung Derajat athletes training methods sport Darajat group workouts (group B), with the number of 20 samples obtained average value (*mean*) 54.70, 53.50 and median, deviation Standard (SD) 4.06. The results of the final test (*post-test*) values obtained average (*mean*) 56.47, 56.46 median, and standard deviation (SD) **4.10**. The results of hypothesis testing are presented in Table 2 below:

Table 2 Summary of Results of Second Hypothesis Testing

Method A	Mean	SD	t _{hitung}	A	t _{table}	Test results	Information
Pre Test	54.70	4.06	15.53	0.05	2.093	signifikan	Ho is rejected
Post Test	56.47	4.10					Ha accepted

Based on Table 2 it can be seen that $t_i (15.53) > t_{table} (2,093)$. This means that the research hypothesis is acceptable. The increase in basic engineering skills martial arts fighting sport athlete this degree from an average score of 54.70 in the *pre-test* be 56.47 in the *post* test. That is, there is a significant difference between the positive influence of group training regimen before the treatment method with the after treatment of the learning achievement of the basic technical skills of athletes.

3. Third Hypothesis Testing.

The results of the final test (*post-test*) Method of Exercise Sport Derajat group circuit training (group B) the

average value (*mean*) 54.71, 54.38 median, and standard deviation (SD) of 3.10 while the final test results (*post test*) method of Exercise Sport Playing Derajat circuit (group A) values obtained average (*mean*) 56.47, 56.46 median, and standard deviation (SD) 4.10 hypothesis testing results are presented in Table 3 below.

Table 3 Summary of Hypothesis Testing Results The third group of Sport Drajat Training Methods Exercise and Sport Drajat Training

Exercise Method	Mean	SD	t_{hitung}	A	t_{tabel}	Test results	Information
Group B	54,71	3,10	5,87	0,05	2,093	significant	Ho is rejected
Group A	56,47	4,10					Ha accepted

Based on Table 3 shows that $t_i (5.87) > t_{table} (2,093)$. This means that the research hypothesis is accepted. It can be concluded that there is a difference in the influence of the Sporting Sport Derajat method is more effective than the tarung derajat Training Exercise method in improving the basic technique skills of sports athletes martial arts Tarung Derajat. These results dikarnakan average (*mean*) Method of Exercise Sport Playing Derajat circuit is greater than the average (*mean*) Drajat Sport Training Networks are $56.47 > 54.71$, so in this study also accept the hypothesis that exercise method Sport Derajat Better Circuit of Sport derajat Exercise The series of Exercises accepted the truth.

Dicussion

Based on the hypothesis testing and the assertion that the learning that the experimental group achieved (the circuit play method and the circuit training method) is not a coincidence, it is actually the result of the research treatment. Although the research analysis is supported by empirical data, there is still another possibility that causes the results of this study with due regard to the limitations.

Use of the method of the series played in skill learning the basic techniques of martial arts fighting tarung derajat allows the athlete to be able to learn more actively, and in accordance with the speed and capabilities of each of them. Material of observation in provision by example range of motion (motion task) while studying, athletes will know and understand the material or the content of learning and the objectives must dica pies. Thus the athlete is confronted with a learning challenge that must be accomplished the set targets. This will encourage athletes to learn / practice better, so that the learning outcomes are achieved by athletes using concatenation method of play is higher than the athletes who learn to use way of learning Exercise Circuit Method. As the results obtained from this study.

The series of exercises on learning methods through explanation and demonstration activities to athletes material movement fragmented. Athletes lack kesem ents to participate actively in the classroom, it also makes the athlete is not fully active, where the discovery of the concepts they are active but at the time of application of the concept of all learning activities coach memperkarsai activities, the athlete eventually will be faced with a situation to accept what is patterned by Coach.

Conclusions

Based on the results of hypothesis testing yielded the following conclusions: (1) Method of Playing Sport Degrees circuit provides a significant influence on basic technical skills of athletes. (2) Circuit Training Methods Sport derajat has a significant influence on basic athlete technique skills, and (3) Sport derajat method through Circuit is more effective than the tarung derajat of Sport derajat Training to improve basic technical skills of sports athletes of Tarung Derajat.

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