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MODEL OF SICKLE KICK PENCAK SILAT TRAINING BASED ON EXERCISE MEDIA IN STUDENTS PENCAK SILAT ATHLETES
(Research and Development Study Model of Sickle-Based Exercise Kick Media Training of Student Athletes)

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Abstract

Introduction. Techniques kick is most often used in competition and in sport the game self-defense, kicks effectiveness depending on various factors, such as the maximum strength of the muscles involved in the level of development of strength, coordination neoromuscular, the linear velocity and the angle of the ankle when kicking leg and improve coordination between agonists and antagonists, a model exercise kick sickle-based media practice, because the model through the medium of exercise is a model of long-term and continuous change constantly, because this type of training will develop with regard to the development of athletes in accordance with the specifications of the branch sport,

Objective of the study. This study aims to determine whether the basic Technical skills learning model based media workout sickle kick effectively improve the skills and abilities of the sickle kick pencak silat sport student athletes

Research methods. Studies that use mixed methods research approach that combines qualitative and quantitative methods. Research Quantitative used to find the effectiveness of the True-Experimental research design shaped the pretest-posttest control group design, Research result. Initial tests ability sickle kick right and left of 6.944, 6.39. 65.22 skill being right, and left 71.26. after being given treatment ability right sickle kick 8.70 and 8.04 left. Skills right 62.48, 68.66 to the left

Conclusion. Based on the results of data from field trials and discussions can be concluded that this type of training with exercise effective media to enhance the capabilities and skills of the sickle kick sports pencak silat students

Key words: Model, Sickle kick, Swiss ball

Introduction

Pencak silat is a sport that is competitive, which aims to achieve maximum performance for those working in the field or branch either individually or in teams. His achievement by (Harsono, 2017), there are four aspects that must be considered and carefully trained by athletes that physical exercise, exercise techniques, tactics and

mentally exercise, and ought to four aspects was to be effective and can accounted for through a scientific approach. Kick is one of the techniques of motion in the sport of pencak silat that have a high value and by (Moreira, Goethel, & Gonçalves, 2016), The kick is the technique most often used in the competition, according (Kazemi, Perri, & Soave, 2010), In the pencak silat game for more than 90% points scored by the kick competition while according to (Gavagan & Sayers, 2017), Roundhouse kick is also the most frequently used in the competition. Pencak silat in Indonesia, there are two basic terms, namely pencak silat. According to (Dudgeon et al., 2015), Pencak silat term usually used by people who inhabit the island of Java, especially in West Java, while silat is often used by people who are on the island of Sumatra or also commonly used term wrangle. according to the great dictionary Indonesian pencak silat is defined game (skills) in self-defense to fend intelligence, attack, and defend themselves with or without weapons. According to (Kartomi, 2011), Pencak silat refers to two components, pencak silat is a performing arts while fighting and martial arts.

Kick which has a good ability to be supported by the ability of muscles that good anyway. Leg and abdominal muscles that are used in the kicking had the muscles of the ankle joint, leg with his duties according (Rasch, 1978), As follows: the extrinsic muscles consist of terbialis anterior, extensor digitorum longus, peroneus tertius, extensor longus hallucius, gastroenemius, plantaris, soleus, peroneus longus, peroneus brevis, flexor digitorum longus, flexor halluces longus and tibialis posterior. while according to (Frederic Delavier, 2013), Stating that the work contracted muscles when a kick is different from the far understandable, it turns out the attack power kick, the actual strength of the kick comes from the psoas and Iliacus, while the rectus femoris is the only one thigh muscles that support the hip flexors, while for sabilisasi makes fall while standing only one leg, is provided by the gluteus medius and calves, so here's four muscle groups that need to be strengthened. While (Valdes-Badilla et al., 2018), states to improve the efficiency of work or in training trainers kick for kick roundhouse kick to train part of the soleus muscle group, rectus femris, biceps femoris, vastus medialis, semitendinoid and hamstring muscles when exercising kick. Based on some opinions on how good a coach in training sickle kick kicks particular train specific muscles needed to kick the sickle itself based on the research and opinions of experts in their field, Joints were working at the time to kick in (Mcninnis. Peter, 2005), Is the ankle, knee, hip, shoulder, and elbow on both sides of the body. While working muscles are the muscles of the abdomen, upper leg, lower leg and foot muscles.

The model is something real and a convention for a complete form (Trianto, 2011). Models help us conceptualize representations of reality. Models are simple representations of more complex forms, processes, and functions of physical phenomena or ideas (Kent L. Gustafson Robert Maribe Branch, 2002). Meanwhile, According to Model (Emeral, 2013), the model kaffah exists as an object or concept that is used to present something. This means that the model is a concept in which there are systematic activities and describe realistic activities to achieve the goals to be achieved.

In particular students aged 12-18 years entered the first middle school and high school. According to (Bompa, 2000) 12 years of age is the right age to start the fight training and specialization stage at the age of 15-16 years. According to. (Ria

Lumintuarso, 2013) At the time the child goes to 12-18 years in the early phase of puberty so that physical exercise is recommended to use their own body weight because children do not have the muscles and bones strong, because that child is still in the growth of bones that causes most of them vulnerable to impact and load heavy. Meanwhile, according to (Bompa, 2000) there are three (3) rules that need to be considered in adolescent athletes train, 1). Develop flexibility, 2). Developing tendon before muscle strength, 3). Developing core muscle strength (core) before other forces. In every stage of life of the child, the child has a developmental specific characteristics in each stage. Although each of these stages has characteristics that are typical, but the stages are not independent, but interrelated.

Stability ball exercises fleksibility or also called swiss exercise ball is a rubber ball measured between 45 cm to 120 cm and this ball supple and springy nature and use customized posture. According to (Beate, 1998), Swiss ball first introduced in London in 1967 for physical therapy and is used for movement facilitate children. Furthermore swiss ball is used for physical therapy, one of which stabilizes the unstable muscle becomes unstable because the ball is made of rubber will increase the muscles that have not done function becomes activated back. (Lehman, MacMillan, MacIntyre, Chivers, & Fluter, 2006), The findings suggest that an unstable surface that is assumed to produce a destabilizing effect and increased muscle activity. This exercise is very easy, safe and attractive to use and can be used by all age levels, both men and women. This exercise without requiring a large space and a special room.

Swiss ball by (Beate, 1998), Also used for health care for neurological and orthopedic patients and especially the treatment requires a bone stability. According to Rutherford and Jones in tanton, Peter, Raeburd and Humpies suggests that adaptations of Swiss exercise ball tends to produce a synergistic muscle coordination and better stabilization, consistent statement of in (Tanton, Eaburn, & Umphries, 2004), stated that the Swiss ball training increase neuromuscular pathways which leads to a strength and a greater balance. In line with (Song et al., 2015) that the swiss ball can improve muscle strength, endurance, flexibility, and coordination and are used to improve the ability to balance the perceptual, besides (Song, Kim, & Park, 2015), Stated. Swiss ball exercises to effectively improve the balance, in line with the (Sekendiz, et al, 2010), (Michael, F and Tammara, 2005), (Brukner, P and Khan, 2006), Swiss Ball exercises are emphasized as an effective training tool to improve core strength, improve spinal stability and flexibility in physiotherapy. Therefore the swiss ball exercises that use stability on the ball, then the ball during practice with the necessary balance and coordination can be trained simultaneously with the power and stability. In line with the results of the study (Paul W.M. Marsall, 2010), Provide evidence supporting the hypothesis that the swiss ball exercises can obtain commensurate muscle activity and recommended for strength training and exercise is also good to use when the body in an unstable state so that the swiss ball can activate the muscles according to function, and according to research results (Tanton et al., 2004), It seems that Swiss ball training can positively affect the stability of the core without simultaneously increase physical performance in athletes. This exercise also without loading exercise but use the upper limbs and lower limbs at the same time.

Some previous studies that have been made and are considered relevant enough or is linked to titles and topics to be studied are useful to avoid the repetition of studies with the same subject matter and serve as one form of enriching reference source before the results of research studies.

(Sudirman, 2015) The study entitled Effect of plyometrics training methods and maxex with force against the speed of the sickle kick pencak silat in STKIP faithful budhi Rangkasbitung, this study used an experimental method with factorial desig 2x2. Sampling using cluster random sampling technique. The study concluded that for the group of students who have the core strength of the muscle-yield speed drills kick sickle better when trained with training methods maxex, with while the group that has core strengths low muscle tone, the result of speed drills kick sickle better when trained with training methods plyometrics.

(Maulana & Wijaya, 2018) The study entitled Effect of Exercise rubber tires and ballast legs to speed sickle kick pencak silat fighter extracurricular daughter SMP Negri 2 Mount Thunder Sukabumi 2017/2018. This study This study used media ballast rubber tires and feet in the implementation of the training process. From the analysis of data showed that the sickle kick velocity using the medium tire rubber exercise has a better percentage increase in speed compared to using leg weights 0,5 kg media. this is because the properties of elasticity and resilience owned rubber inner tube.

(Amrullah, 2015). This study aims to determine the effect of resistance training exercises Xander (TRX) on the ability of the sickle kick pencak silat sport, The method used in this research is the method of experiment with the design of a complete block design One group pretest-posttest-designIn conclusion there is significant influence from TRX Training Methods Against ability sickle kick, proved that the value of t 25.44> t table 2.13.

Every form of exercise performed by sportsmen have a special purpose. Therefore any form of stimulus will be processed specifically also by the athlete, so the training material should be selected keeping with the needs of branches of sport. To that end, as a consideration in applying the principles of the specification(Tangkudung, 2012), among others determined by: (a) the specification of its energy needs, (b) specification of the form and method of practice, (c) specification of the characteristics of motion and muscle groups that are used, and (d) the time of periodization training, the application of the principle of specialization should be adjusted to the age of the athlete to avoid things that are not desirable.

Objective of the study

Based on the previous analysis, the objectives are to determine whether the model-based media sickle kick practice this exercise effective for athletes pencak silat students.

Research methods

The study, the authors propose a study that used a mixed methods research approach that combines qualitative and quantitative methods. Quantitative approach is used to find the effectiveness of the True-Experimental research design shaped the pretest-posttest control group design. Subjects in research and development are student athletes in the city of Pontianak and the Tests performed in the city of Pontianak with a

large number of 5 silat college with respondents as many as 100 people were divided into two groups, one experimental group with the number of respondents 50 and one control group of 50 respondents, the results of product trials conducted over 12 meetings. Qualitative descriptive analysis techniques in the form of interpretation of the data from the questionnaire the subject of research, interpretation of scores calculated by the score acquisition of each item. In addition to qualitative data, data analysis techniques used in this study is also in the form of quantitative data. Quantitative data is data obtained using instruments such as the attitude scale (Likert scale) and the results of pre-test and post-test and compared between the two

Result

Based on the output results by using SPSS 16 that the average value of the result of the ability of kick sickle right before the given model of 6.9440 and after being given the treatment with the model 8.7034 means that the average value of the ability of kick sickle right there is an increase in tests of significance difference with SPSS 16 may be the result of t-count = 20:59, df = 49 and p-value = 0.00 <0.05 which means there is a significant difference in the ability of the sickle kick right before and after the treatment model of media-based exercise workout kick.

Based on the output results by using SPSS 16 that the average value of the result of the ability left before the sickle kick awarded after the model of 6.3900 and 8.0404 given treatment model means that the average value Sickle Kick Left ability there is an increase. While the difference in the significance test with SPSS 16 may be the result of t-test = 18:44 df = 49 and p-value = 0.00 <0.05 which means there is a significant difference in the ability of the sickle kick left before and after the treatment model of media-based exercise workout sickle kick.

The average yield pretest skills right sickle kick is 65.22, after treatment with a sickle kick exercise workout model of media-based exercises. Sickle kick right skills further after the treatment is carried out post-test or the final test and the average value of post-test was 71.26. In a test of significance of the difference with SPSS 16 may be the result of t-test =32.00, df = 49 and p-value = 0.00 <0.05 which means there are significant differences left sickle kick skills before and after the treatment model of an exercise using exercise media

Based on the output results by using SPSS 16 that the average value of the results of the sickle kick right skills before being given a model of 65.22 and after 71.26 given treatment model means that the average value of the sickle kick skills right there is an increase. In a test of significance of the difference with SPSS 16 may be the result of t-test = 25.64, df = 49 and p-value = 0.00 <0.05 which means there are significant differences sickle kick right skills before and after the treatment model of media-based exercise workout sickle kick.

Based on the output results by using SPSS 16 that the average value of the results of Sickle Kick Skills Left before the given model of 62.48 and after 68.66 given treatment model means that the average value of the sickle kick skills left there is an increase. In a test of significance of the difference with SPSS 16 may be the result of t-test = 32.00, df = 49 and p-value = 0.00 <0.05 which means there are significant differences left sickle kick skills before and after the treatment model of an exercise using exercise media.

Discussion

Overall product development phases of research generated by the development of feasible and meets the criteria can be applied in practice kicks, especially the sickle kick. Nevertheless researchers found several weaknesses and shortcomings of the products are made, but to get the product better training models, while some records were obtained based on the findings in the field:

a. Product model of media-based exercise workout sickle kick just examine variations in outline and needs to assess variations in more detail by experts skilled in the art with sport saince approach.
b. Model-based media sickle kick this practice should be continued with the development research with the overall ability in accordance with the anatomical and movement analysis needs of athletes
c. Implementation of the model-based media sickle kick workout exercises can not be controlled, because the understanding of the need for sport saince coach in training.

Conclusion

Based on the results of data from field trials and discussions can be concluded that this type of training with exercise effective media to enhance the capabilities and skills of the sickle kick pencak silat sport teen

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