



## **Influence of The Difference of Perception and Kinesthetic Exercise Methods Against Precision Hit The Ball Softball**

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### **Abstract**

The purpose of this study was to determine: 1) The difference between the effects of training methods and the gradual striking distance striking distance remains as to the accuracy of hitting the ball Softball. 2) The difference in accuracy influence Softball hitting the ball between the athletes who have a good kinesthetic perception, kinesthetic perception was, and kinesthetic perception less. 3) The effect of interaction between training methods with kinesthetic perception as to the accuracy of hitting the ball Softball. This study used an experimental method with 2x3 factorial design. The results of this study were: 1) There is a significant difference between the gradual striking distance training methods and training methods remain striking distance of the ability to hit a softball with the result of the acquisition value p-value = 0.027 smaller than 0.05. 2) There is a significant difference between athletes who have a kinesthetic perception of good, moderate, lacking the ability to hit a softball with the result of the acquisition value p-value = 0.000, which is smaller than 0.05. 3) There is an interaction between striking distance training methods and kinesthetic perception of the ability to hit a softball with the result of the acquisition value p-value = 0.000, which is smaller than 0.05 The conclusion of this study were: 1) Gradually striking distance training methods have a better effect than the fixed striking distance training methods. 2) Athletes who have less kinesthetic perception has better results than the athletes who have good kinesthetic perception and being. 3) There is an interaction between striking distance training methods and kinesthetic perception of the ability to hit a softball.

### **How to Cite**

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## INTRODUCTION

The sport has been known since ancient times, but at the moment it is still known by tradition and habit in Community especially among the top community. A few years passed and sport is increasingly known, to bring up the idea of making a sports match.

The sport of softball was born in the united states that was created by George Hancock in 1887 in the town of Chicago. Originally, this game just as a recreation and played in a closed room. The main attraction is this game can be played by all ages, both men and women. Further development, resulting in the international softball federation and also the rules of the game. Especially for the match between countries. For this meeting is usually preceded by national and regional championships is handy. The participating countries. Softball is the development of the sport of its kind that is baseball (softball) or hardball (Suharja 2010:104).

Softball is a fun fast motion games. These sports give priority to speed, agility and health too. The sport of softball a lot of favorable among teenagers, this is because in the softball game a lot things that draw attention especially the teenagers. Clothing uniforms or team design with many colors favored by teenagers, gloves or glove and unique game rules are given a challenge. In addition the techniques of playing many draw attention, such as hit the ball as far, precision throw on target and so on. To be able to perform properly, as well as other sports, in the game of softball coaching also required is good and correct. Coaching is done should include four aspects, namely, the construction of the physical, mental, tactics and techniques. All four of these aspects influence each other, meaning that the four aforementioned aspects cannot be separated or abandoned for its construction is not done. In coaching softball, mastering basic techniques is indispensable to be able to play well in a game. Many of the basic techniques of the game throwing techniques such as: softball ball (throwing), catch the ball (eye-catching), hit the ball (batting), techniques of drawing opponents and many more other techniques. The technique of hitting the ball holds very important for squad or team. However it does not reduce the importance of the basic techniques of the other. The technique of hitting the ball (batting) is a technique that is important in the beginning of the assault because by mastering the technique of hitting the good and true will be able to generate a punch that can be directed towards

to the empty area that cannot be accepted by the opponent, even the result might just be out field or in other words could produce a home run or runners can run toward the base until home base without can be turned off by the opponent and the right to obtain a value of 1. To be able to produce a good punch and actually need to do exercises with proper methods and customized with an exercise program that have been compiled. As for the element of motion in hit the ball softball among others: strength, coordination, flexibility, agility, reaction time, and kinesthetic perception.

Sensitivity of kinesthetic awareness in doing is movement or activity. This means, owned a kinesthetic perception of athletes will be able to support an increase in the skill hit the ball softball. According to Sugiyanto and Sujarwo (1992:227) that, "kinesthetic perception has the role that is very important because it is the element of physical ability that allows a person to realize the position and movement of the body that is being done". But to master the technique of throwing a good, necessary exercise that is hard-wired, regularly and use the proper method of learning, because the exercise is a necessary learning conditions for showing on a complex skill.

According to M. Sajoto (1995:9) accuracy is someone to control the motion of non-motion towards the target. Parno (1992:98) says the accuracy is a person's ability to drive on the target motion in accordance with its purpose. An precision components of physical condition. The physical condition is one of required in every effort increase achievement any athlete. It can even be said to be the basic foundation of the starting point of a prefix of sports achievements. According to Singer (1980:30) the accuracy is part of motion skills. The accuracy required in determining how to motion activity can be performed.

Exercise is a systematic activity which is carried out over and over again. The goal is to get the automatic movement. According to Harsono (1988:323), exercise is the process of the work done in a systematic, continuous where the load and the intensity of the exercise the more day grew, eventually giving the overall stimulus to the body and aims to improve the physical and mental together. According to Dietrich in Martin Joseph Nossek (1982:12) practice is a process of planned sports complex developed by wearing the contents of practice, practice methods, organizational actions in accordance with the intent and purpose. According to Sudjarwo (1993:14) suggests that exercise is "a systematic process that repeatedly run in with the always increasing load

exercise. Harsono (1988:101) exercise is “a systematic process is repeated with increasingly bolder weights workout or increase the number of jobs”.

Practice hitting by using distance methods at gradual used or applied to those who are not ready or not, so get to know the distance between the true base. Often the movement hit the ball can't be done well at a distance, like how to hold a bat, a bat swing movement still does not dovetail with the arrival of the ball and not right at a time when hit. According to marta dinata (2006:12) that:

“all forms of exercise will be planned from the most modest rise to the rather difficult and so on. If you have not yet to mastering simple forms correctly, do not be too eager to upgrade to the more difficult, because the wrong gesture at the outset when it can't be corrected will be made more difficult in the future, and if it can already perform an easy movement correctly, then it is permissible to proceed to a new movement that is more difficult. “

Practice hitting by using method of distance at fixed done by whole and intact. According to sugiyanto (1996:67), the overall method is a way of approach which since the beginning of the learners are directed to practice a whole series of movements he had learned. Based on the understanding of the methods above it can be concluded that, at a distance of exercise methods remain is how to exercise that operates in the wholeness of the skills learned. In learning skills overall, many coaches who implement this method by not ignoring the methods section. This is due to the overall method has numerous advantages.

Some experts have its own definition of kinesthetic perception. Sugiyanto (1996:213) that “perception is catches the meaning of sensory cues that are accepted. Meaning of the word from the cue is called information, and information that is captured through the senses then processed in mental work to find or identify information, disclose return information collected and make assessment of the information received. “ thus it can provide awareness of the position of the body or body parts that move, also known the muscle contractions and balance the body. Of this then we will control the movements are done more accurately. With the ability to control more accurate means the condition of being semakain good movement and movement that are generated will be more effective. Individuals with a high level of kinesthetic would be easier to do a precision hit the ball softball. Players will be able to move towards a more consistent.

Yet he knows the differences influence the perception and kinesthetic exercise method is an interesting phenomena to be examined, based on the background of the problems that have been pointed out in the above, the authors are interested in holding research entitled “latihan method and influence of the difference of perception of kinesthetic against precision hit the ball softball (the study of the experiment method training exercise staged at a distance and the distance at assisted athletes remain at cilacap softball clubs.”

Based on the background of the problem, identification of issues, problems and limitations that have been outlined, then in this research are formulated as follows: 1. Is there any difference between a rehearsal method influences the distance at a gradual and distance at fixed against the accuracy of hitting the ball softball?; 2. Are there differences influence the precision of the hit the ball softball among athletes who have a kinesthetic perception, perception of well being, and kinesthetic perception kinesthetic less?; 3. Does the influence of the interaction between exercise methods with the perception of kinesthetic against precision hit the ball softball?

Based on the outline of the issues that have been raised above, the objectives to be achieved in this research are: 1. To know the difference between a rehearsal method influences the distance at a gradual and distance at fixed against the accuracy of hitting the ball softball; 2. To know the differences influence the accuracy of hitting the ball softball between athletes who have a kinesthetic perceptions of good, moderate, and perception kinesthetic less; 3. To know the influence of the interaction between exercise methods with the perception of kinesthetic against precision hit the ball softball.

## MATERIALS AND METHODS

Research methods used in this research is a method of using a factorial design experiments with 2x3. The variable in this study consisted of two free variables (the independent) and a bound variable (dependent) with details as follows: 1) dimanipulatif free Variables, namely: exercise distance method and the method of gradual exercise at a distance at fixed. The free variables of the attributive (controlled) are: the perception of kinaesthetic perception either, kinesthetic, kinaesthetic perception and less. Bound variables in this study was the accuracy of hitting the ball Softball. The population in this research is the whole Jock Softball CSK and the sample used in this study is 60 athletes. The required data is

collected with the tests and measurements. Data collection techniques used in this research were: 1) data measured with kinaesthetic perception test Vertical Linear Horizontal and Linear Space Test Space Test of Barry I. Johnson & k. Nelson (1970:188-190). ). 2) test the accuracy of hitting the ball Softball batting elrod used is the test that is to hit the ball from test Elrod. Analysis techniques of data analysis techniques used are variants (ANAVA) factorial design 2x3 at  $\alpha = 0.05$ .

## RESULTS AND DISCUSSION

Test results the ability hit the ball softball athlete group given exercise distance methods at gradual kinaesthetic perception both by category (a1b1). Based on the table above note that = 9.20. SD = 4.05 and n = 10. Of the 10 athletes who have the ability to hit the ball softball above average by as much as 3 athletes and seven athletes below the average. Test results the ability hit the ball softball athlete group given exercise distance methods at gradual with kinesthetic perception categories are (a1b2). Based on the table above note that = 9.40 SD = 3.47 and n = 10. Of the 10 athletes who have the ability to hit the ball above the average softball as much as 5 athletes and athletes under the average. Test results the ability hit the ball softball athlete group given exercise distance methods at gradual kinaesthetic perception categories with less (a1b3). Based on the table above note that = 19.40. SD = 2.32 and n = 10. Of the 10 athletes who have the ability to hit the ball above the average softball as much as 4 athletes and athlete under 6 average.

Test results the ability hit the ball softball group of athletes given at distance workout method remains good kinesthetic perception categories (a2b1).

### Test For Normality

Data analysis need to be tested using kenormalannya distribution approach Lilliefors. Data normality test results done in each group is as follows: A group of athletes given at distance gradually exercise methods with good kinesthetic perception categories (a1b1) value sig = 0.136 > 0.05 (P > 0.05) mean Gaussian normal population frequency data. A group of athletes given distance workout methods at gradual with the categories of perception are kinaesthetic (a1b2) sig. = 0.819 > 0.05 (P > 0.05) mean Gaussian frequency normal population.

A group of athletes given at distance gradually exercise methods with less kinesthetic perception categories (a1b3) sig. = 0.204 > 0.05 (P

> 0.05) means the Gaussian normal population frequency. A group of athletes given at distance workout method remains good kinesthetic perception categories (a2b1) sig. = 0.675 > 0.05 (P > 0.05) mean Gaussian frequency normal population. A group of athletes given at distance workout methods remain with kinaesthetic perception categories are (a2b2) sig. = 0.829 > 0.05 (P > 0.05) mean Gaussian frequency normal population. A group of athletes who exercise methods provided the distance at fixed with categories the less kinesthetic perceptions (a2b3) sig. = 0.059 > 0.05 (P > 0.05) mean Gaussian frequency normal population.

### Homogeneity Test

To test the homogeneity in this study using Levene Test. From the table above based on Levene Test found that the value of sig = 0.429 > 0.05 (P > 0.05) then the data is derived from a homogeneous population that comes in.

### Hypothesis Testing

Hypothesis testing studies performed with ANOVA techniques (analysis of variance). For the purposes of testing the hypothesis then conducted data analysis by using analysis of variance ANOVA, i.e. ANOVA two roads (two ways). All calculations (computational) done using the SPSS Statistical Program 22. Based on a test of the hypothesis can be described as follows:

**Table 1.** Results of the statistical analysis answers the zero hypothesis

Null Hypothesis ( Ho)	Fo	Sig	Ho
There was not difference between a rehearsal method influences the distance at a gradual and distance at fixed against the accuracy of hitting the ball softball?	5,139	0.027	rejected
There was not differences influence the precision of the hit the ball softball among athletes who <b>have a</b> kinesthetic perception, perception of well being, and kinesthetic perception kinesthetic less	10,39	0.00	rejected
There was not influence of the interaction between exercise methods with the perception of kinesthetic against precision hit the ball softball.	9,49	0,00	accepted

Based on the table above then test the hypothesis can be described as follows: there is a difference there is influence significant influence on the difference between the exercise method of distance at a gradual and at fixed distance workout methods against the ability to hit the ball softball. From the results of the analysis of variants obtained value  $p$ -value = 0.027 smaller than 0.05. Therefore the zero hypothesis ( $H_0$ ) was rejected and the alternative hypothesis ( $H_a$ ) received. This means that there is a difference between a rehearsal method method influences the distance at a gradual and at fixed distance workout methods against the ability to hit the ball softball. There was a difference significant influence among athletes who have a kinesthetic perceptions of good, moderate, less against the ability to hit the ball softball. From the results of the analysis of variants obtained value  $p$ -value = 0.000 smaller than 0.05. Therefore the zero hypothesis ( $H_0$ ) was rejected and the alternative hypothesis ( $H_a$ ) received. This means that there is a difference between the influence of athletes who have a kinesthetic perception, while and less towards the ability to hit the ball softball.

There was interaction between the methods of practice and perception at a distance of kinaesthetic against ability hit the ball softball. From the results of the analysis of variants obtained value  $p$ -value = 0.000 smaller than 0.05. Therefore the zero hypothesis ( $H_0$ ) was rejected and the alternative hypothesis ( $H_a$ ) received. This means that there was interaction between the methods of practice and perception at a distance of kinaesthetic against ability hit the ball softball. The Difference In The Effectiveness Of Treatment After the test is performed with ANOVA hypothesis who aims to find out the difference of treatment group experiments, then when there is a significant difference in the results of the Group and to know which treatment group is more effective or better done by done by Post Hoc Tests with LSD.

On the methods of practice at distance can not be done because it only consists of two level (at distance exercise method and the method of gradual exercise at a fixed distance). On the chart multiple comparisons, can be found the average difference between the athletes who have a kinesthetic perceptions. On the table could be explained:

There are significant differences in the Group of athletes who have a kinesthetic perceptions well with athletes who have less kinesthetic perceptions. There are significant differences in the Group of athletes who have a kinesthetic per-

ceptions are with athletes who have less kinesthetic perceptions. There is no significant difference in the Group of athletes who have a kinesthetic perceptions well with athletes who have a kinesthetic perceptions are.

## Discussion

Influences of a distance Workout Methods At gradual and At Fixed Distance Workout Methods Against the ability to hit the ball Softball. Based on the results of the analysis of the data indicates that there is a distinction between the distance at a gradual and distance at fixed against the ability to hit the ball softball, in penelitan this method exercises the distance at gradually has better results than the methods of exercise at a fixed distance, it can be seen from the results of the score method exercise distance at gradually is 12.6667 and score at a fixed distance is 10.2333.

Influence the ability to hit the ball Softball among athletes who have a Kinesthetic Perception, while and less.

The results of the analysis of the data indicates that there is a difference between athletes who have a kinesthetic perceptions both compared kinesthetic perceptions have less, it is in accordance with the above theory is that the perception of kinesthetic will show the person's ability to perform the motion correctly, quickly and effectively. The more the athletes have good kinesthetic perception so the athletes would be able to carry out all types of exercises correctly and accurately in accordance with the required level of energy expenditure. Influence of the interaction between the methods of Practice and perception At a distance of Kinesthetic Against Ability hit the ball Softball.

Of research results indicate that the interaction with kinesthetic perception exercise methods against the ability to hit the ball softball meaningful. This is evidenced from the value of  $H_0$  is accepted at  $\alpha = 0.05$ . This can be proved by the results of the analysis of variance calculation 2 factors i.e. because  $p$ -value = 0.000 > 0.05. The method of exercise of the distance at a gradual and exercise methods distance at fixed level of perception of kinesthetic against ability hit the ball softball, means there is influence significant interactions between them or there is an interaction between the two.

This can be explained that the methods at gradual distance workouts will have good results when given to athletes who have less kinesthetic perceptions and methods at a fixed distance workouts will have better results when given to athletes who have a good level of kinesthetic per-

ception.

## CONCLUSIONS

From the results of testing a hypothesis can be drawn such conclusions are below: 1. There is a difference significant influence between the method of exercise of the distance at a gradual and at fixed distance workout methods against the ability to hit the ball softball. The method of exercise of the distance at a gradual influence better than exercise at a fixed distance method; 2. There is a difference significant influence the ability to hit the ball softball among athletes who have a kinesthetic perception, while and less. Athletes who have less kinesthetic perceptions have better results compared to athletes who have a kinesthetic perceptions good and moderate.

There is an interaction between the methods of practice and perception at a distance of kinaesthetic against ability hit the ball softball; a. at distance workout Methods gradually have better results when given preferential treatment to athletes who have less kinesthetic perceptions; b. method of exercise at a fixed distance has better

results when given preferential treatment to athletes who have a kinesthetic perceptions well.

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