The Effect of *Assisted Training* on Speed of Riau PPLM Athletes 2019

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Abstract - Based on observations in the field, the symptoms of sprinting are found when running speed, lowering feet and soles of the feet against soil contact is not optimal, step speed and step length are still slow and not maximal. The purpose of this study was to determine the effect of *Assisted Training* for the speed of PPLM Riau athlete 2019. In this study, researchers took a population of 21 people. The sample in this study used a total sampling technique, where all populations were sampled. Data obtained from a 40-yard speed test category. Data were analyzed using the t-test. Based on the research that conducted on the sample by doing pre-test (initial test) by running in 40 yards, then proceed with treatment (*Assisted Training*) for 16 meetings. After that, it was post-tested (40-yard run), the results obtained from the pretest and posttest were analyzed by t-test. Hypothesis testing results show that the result of t-count is 7.664 with t-table 1.725 then H_0 is rejected; H_a is accepted, at the alpha level (α) 0.05. It can be concluded that there is an effect of *Assisted Training* on the speed of Riau PPLM athletes 2019.

Keywords: *Assisted Training, Speed*.

1. Introduction

Sports coaching are a part that cannot be separated from coaching as a whole and it is not only intended to improve the physical quality of the community. But also, it can make the name of the nation become famous in the international world through events or matches. It shows that sport is very important and unworkable role in realizing the ideals of national development. National Sports No. 3 of 2005 which explains "National Sports Development and Development can guarantee equitable access to sports, and also it able improve health and fitness, improve performance, provide sports management capable of facing challenges and demands for changes in national and global life" SKN Constitution (2007).

Sports has become a necessity for each human being to obtain physical health and fitness, which is also developed to achieve the achievements in each sport that is fostered and developed for the demands of the sport itself. Achievement is not an easy thing. Besides effort and hard work, the factors that must be possessed by each athlete if they want to achieve maximum performance, namely: Physical development, technical development, tactics development, mental development and maturity of champions (Sajoto, 1995: 07). Athletes can be nurtured, improved, centered with the aim that athletes can achieve maximum performance. Achievement sports are sports that foster and develop sports in a planned, tiered and sustainable manner through competition, and supported by existing sports knowledge and technology, this is intended to achieve maximum achievement, various achievements in sports that have expanded widely in Indonesian society, one of them is the branch of Athletics.

Athletic is the oldest sport and it is also considered the mother of all sports. Athletics have long been unconsciously carried out by people such as walking, running, jumping, spearing while hunting in

everyday life. Athletics in Indonesia is known through Dutch colonizers. At that time those who get the opportunity to do the exercises are limited to certain groups and places. According to Munasifah, (2008: 4), the numbers in athletics include the road and running, jumping and throwing event.

Running is the development of walking, namely the activity of stepping forward and repeatedly in order to move the body from one place to another, and have special characteristics. These properties, among others, at a time when the foot is not in contact with the soil, or there is no foundation on the ground, is currently known as when drifting causes the body to be less stable. (Tamat, 2002: 2.75). Many forms of the sprint are competed, such as sprinting.

Sprint is done by relying on high speed starting from the start, in the track, and finish. Mechanically the development of sprint running speed requires an increase in motion and a state of rest until maximum speed. Run with such a pattern to train the period of positive acceleration in the running stage. The method of accelerating sprinting requires the legs to move as quickly as possible so that the body moves quickly. Both limbs take turns in supporting and moving the body at an acceleration that takes place in a relatively short time. When running activities, the muscles will receive the burden of activity, the ability of the muscles to accept the load while on the move is called power. In sprinting, the most vital muscle is subjected to a load of leg muscles starting from the beginning, when running, until reaching the finish. Therefore, leg muscle strength can be interpreted as the ability of the leg muscles to accept the burden when performing movements that rely on leg muscles or are called muscle strength. In short, distance running numbers, limbs are the main means of movement to support the effort to move the body from the start and start to finish in the shortest possible time. Aside from the most dominant power leg muscles to get good results namely speed.

Speed is the ability to move in a row to take a distance that in the time interval at the same mileage, the shorter the travel time the resulting speed is getting better, (Ismaryati, 2008: 57). This means that to get fast travel results requires maximum speed. To get the maximum speed you need to do exercises that can increase speed. Many forms of speed-enhancing exercises include Assisted Training, Stair Sprint (close-range stairs), Top End Speed Prills (speeding up running), Hill of Ramp Sprint (close-range ramps), many other forms of training. So many exercises to increase the running speed.

Based on the description above the speed of running an athlete running is on how they do the sprinters. Meanwhile, based on observations in the field, the symptoms of sprinting were found when running speed, lowering feet and soles of the feet against soil contact was not optimal, the pace and step length were still slow and not maximal. Therefore the author takes a form of running speed training, namely Assisted Training. To find out how effective this training is, further research is needed, therefore the problem of this research is entitled The Effect of Assisted Training Exercise on the Speed of Riau PPLM athletes 2019.

2. Methodology

In this study, researchers took the population of Riau PPLM athletes 2019 which amounted of 21 people. This population is only for male PPLM that is intended to be more homogeneous. According to Suharsi, Arikunto 2010 "If the research subject is less than 100 people, then it is better to take or test all of these subjects. Whereas in this study the subject was less than 100 people, so the authors took 21 PPLM Riau samples. This test was to measure the speed of a person in running. The test or standard used was a moving speed test with a 40-yard sprint straight ahead of Sajoto (1995: 22).
Tools and Equipment

1. A flat field or track with a minimum size of 50 m
2. Stopwatch, assessment form and stationery
3. Start flag
4. Finish line observation pole
5. Running track
6. Whistle

Tester
1. One people as starter
2. One people as time registrar
3. Two people as time takers

Test implementation
1. For starting should stand up
2. At the signal "YES" they ran as fast as possible towards and over the finish line

Simultaneously the signal "YES" Stopwatch is run and stops when they reaches the finish line.

3. Result and Discussion

The data obtained as a result of the research are quality data through tests before and after treatment of Assisted Training exercises on the speed of Riau PPLM athletes. The variables that exist in this study are Assisted Training exercises which are denoted by X as the independent variable, while the Running Speed is denoted by Y as the dependent variable. After testing the 40 yards running speed before the Assisted Training was carried out, the initial data was obtained with the details in the Pre-test Result Analysis of 40 yards running speed as follows: the fastest time is 6.15 seconds, the delay time is 7.89 seconds, with a mean of 6.77, a standard deviation of 0.59, and a variant of 0.344. Analysis of data contained in the frequency distribution as follows:

Table 1. *Interval* data of *Pree-test* for 40 yard

Class Interval	Absolute Frequency	Relative Frequency
6,15-6,50	10	47.62
6,51-6,86	3	14.29
6,87-7,22	2	9.52
7,23-7,58	3	14.29
7,59-7,94	3	14.29
JUMLAH	21	100%

Based on the frequency distribution data above, the percentage of 21 samples turned out to be 10 samples (47.62%) had the results of running speed with interval classes 6.15-6.50, then there were 3 samples (14.29%) having running speed with interval classes 6.51-6.86, and as many as 2 people (9.52%) have the results of running speed with interval classes 6.87-7.22, then 3 samples (14.29%) have the results of running speed with interval 7 , 23-7.58 and 3 samples (14.29%) had the results of running speed with class interval 7.59-7.94. For more details can be found in the following histogram:
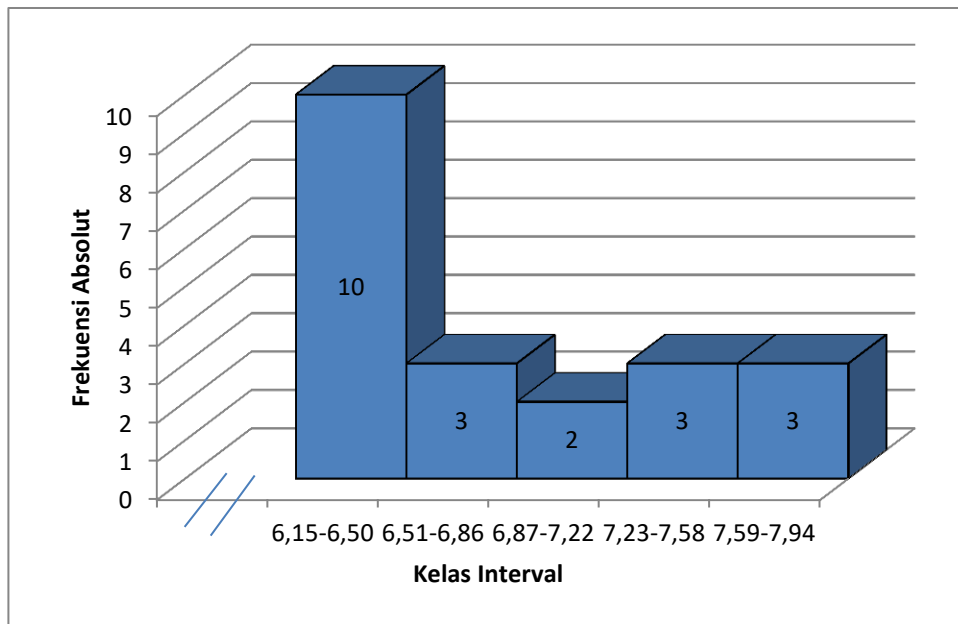
Figure 2. Histogram of the Pre-test Speed of 40 yards

After testing the 40 yard running speed and applying the Assisted Training exercise treatment, the final data is obtained with the details in the Analysis of the Post-test Results of 40 yard running speed as follows: the fastest time is 5.39 seconds, the late time is 7.65, with mean 6.43, standard deviation of 0.63, and variant 0.397. Analysis of data contained in the frequency distribution as follows:

Table 2. Data Interval Value Post-test 40-yard run speed

Nilai Kelas Interval	Frekuensi Absolut	Frekuensi Relatif
5,39-5,84	3	14.29
5,85-6,30	9	42.86
6,31-6,76	2	9.52
6,77-7,22	4	19.05
7,23-7,68	3	14.29
JUMLAH	21	100%

Based on the frequency distribution data above, the percentage of 21 samples turned out to be as many as 3 samples (14.29%) had the results of running speed with the interval class 5.39-5.84, then as many as 9 samples (42.86%) had running speed with class intervals of 5.85 to 6.30, then as many as 2 samples (9.52%) had running speed with interval classes 6.31-6.76, as many as 4 samples (19.05%) had the results of running speed with interval class 6.77 -7.22 and 3 samples (14.29%) have the results of running speed with class interval 7.23-7.68. For more details, it can be found in the following histogram:
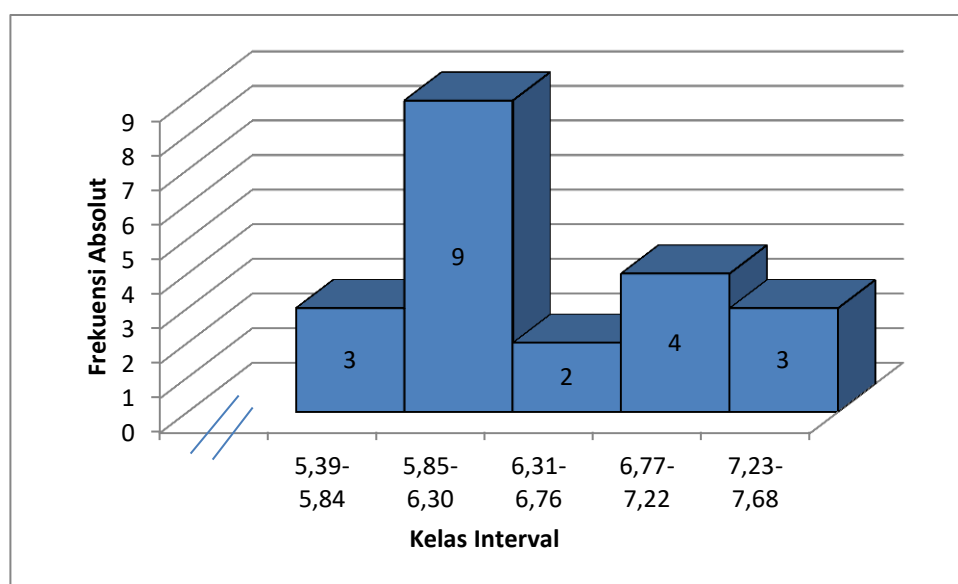
Figure 3. Histogram of the Post-test speed of 40 yards

Testing requirements analysis is intended to test the initial assumptions that are used as a basis for using variance analysis techniques. The assumptions are that the data was analyzed and obtained from samples that represent the population with a normal distribution, and the groups that are compared come from a homogeneous population. For that what the testers used is the normality test. Normality test is done by lilliefors test with a significant level of 0.05 with the results of testing the following requirements:

The normality test was carried out by Lilliefors test, the results of normality tests on the research variables were exercise Assisted Training (X) Running speed (Y) can be seen in table 5 as follows:

Table 3. Normality test running of 40 yard

Variable	Calculated of L	Table of L	Remarks
Pree-test 40 yard	0,170	0,190	Normal
Post-test 40 yard	0,186	0,190	Normal

Based on table 5 above, it can be seen that the results of the pre-test run speed of 40 yards after the calculation results in calculated L of 0.170 and L table of 0.190. This means that calculated L is smaller than tabled L. It can be concluded that the distribution of data from the 40-yard run speed is normally distributed. For testing the data, the 40-yard run speed post-test results in calculated L of 0.186 smaller than the tabled L of 0.190. So it can be concluded that the distribution of data from the 40-yard run speed post-test is normally distributed.

The hypotheses tested in this study are:

H0: There is no effect of Assisted Training training on the speed of Riau PPLM athletes.
Ha: There is an effect of Assisted Training training on the speed of Riau PPLM athletes.

The data obtained were analyzed descriptively, and then further testing the research hypotheses that had been proposed according to the problem was: "there was an effect of Assisted Training training on the speed of Riau PPLM athletes. Based on the analysis, the t-test yields t count of 7.664 and t table of 1.725. It means calculated t > tabled t. It can be concluded that H0 is rejected.

From the results of the above analysis, it can be concluded that there is an effect of Assisted Training training on the speed of Riau PPLM athletes 2019 at alpha level (α) 0.05 with a 95% confidence level.

Table 4. Hypothesis test

DK (N-1)	$T_{calculated}$	t_{table}	Remark
20	7.664	1.725	Significant

Based on the results of the research until the data processing after the research was carried out starting from the data collection until the data processing was finally used as a benchmark as a discussion of the results of the study as follows: there is an effect of Assisted Training training on the speed of PPLM Riau athletes, this shows there is an influence between the two the variable above. Testing the hypothesis that shows that there is an effect of Assisted Training training on the speed of PPLM Riau athletes 2019, this illustrates that running speed influences the practice of Assisted Training.

So with the practice pattern of Assisted Training that is applied to PPLM Riau athletes 2019, then there is an increase in the running speed of players. This means that every exercise that is carried out certainly expects an increase in the results achieved. Exercise is a repetitive process and increases the potential in order to achieve maximum performance.

Based on the results that have been found, that there is an influence of the training given to obtain the speed results needed in the game of football. The training given for approximately 16 meetings, has given maximum results. Before doing the exercise first the researcher does the first test (preetes) running speed, then after the exercise is done, the second test (posttest) is taken. After getting the results from the pre-test and post-test, then processed, after processing using the t-test, the processing results show an increase, because the t-test obtained is greater than the table. Which is t count (7,364)> t table (1,725).

4. Conclusion

Based on research that is conducted on 21 samples by doing pre-test running for 40 yards, then proceed with treatment (Assisted Training) for 16 meetings. After that, it was conducted a post tested for 40-yard running. The results obtained from the pretest and posttest is analyzed by t-test. Hypothesis testing results show that the result of calculated T is 7.664 with tabled T of 1.725 then H0 is rejected, Ha is accepted, at alpha level (α) 0.05. It can be concluded that there is an effect of Assisted Training training on the speed of Riau PPLM athletes 2019.

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