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Research Papers

**REPETITION TRAINING METHOD IMPROVES
THE PERFORMANCE OF SPRINTERS****Mr. Dileep Tirkey**Assistant Director, Directorate of Physical Education
Pt. Ravishankar Shukla University, (C.G.)

Abstract

The present investigation was conducted to determine the effect of Repetition Training Method on Performance of 200 meter Sprinters. Twenty four male and female students from athletics specialization were selected as subjects for the present study. They were classified into two groups of 12 each. Out of two, one was experimental and another was control group. Group 'A' was designated as experimental, while 'B' was designated as control group. The treatment was assigned to experimental group only. The training was given for two months, five days a week to the experimental group. The volume of the work was very less for very first week and it was gradually increased from second to the last week of the training programme. The repetitions of 80 mts, 100 mts, 150 mts, 200 mts and 250 mts were given to the experimental group. The numbers of repetitions were gradually increased from 6 to 10 repetitions. The intensity of work load was set 90-100% for Repetition Group. Data were taken at the beginning and at the conclusions of an experimental period of two months. Paired 't' test was applied between pre – test and post – test means of each group, in order to find out within group improvement in experimental and control group. The level of significance was set at 0.05 levels. It is concluded that Repetition Training Method was effective for the improvement of 200 meter sprinters.

Keywords: Repetition training method, intensity, speed endurance, repetition, complete recovery.**INTRODUCTION:**

Athletics is great fun and people of all ages, can enjoy it. Athletic activities can be traced back to the ancient Greeks, who used to take part in games of running, throwing and jumping. Running is the most natural of athletics movements. Children run as part of their play and practically every game requires reserves of stamina and the ability to run fast. Every track event has running as its essence, sometimes alone, sometimes with a team and sometimes between obstacles. Every training and conditioning programme contains an element of running and tests of fitness or physical ability always include running for speed.

Two hundred meters running may requires the speed like short distance sprinter, but by no means and all 100 meters sprinters can completed successfully at 200 meters. In addition to the extra distance, there is also a bend that must be negotiated at top speed. It is not a long 100 meters or a short 400 meters, but in an event of the 200 meters it also needs control, balance and poise. The 200 hundred meter runner like the 100 meter athlete must train for greater speed through high-quality sprinting, paying special attention to particular points of technique during repetition runs. In addition he must train at high speed

bend running and he must work for stamina with full and over distance repetitions.

The repetition method is characterized by high intensity (90-100%) of work with intervals of complete recovery. It is the best method for improvement of speed abilities including speed endurance. In endurance training, the repetition method is used to improve components or factors of specific endurance or of anaerobic capacity. For the improvement of specific endurance the repetition method is used in the form of repetitions of the complete distance or part distance with the purpose of improving pace judgment of competition tactics.

Certain components of anaerobic capacity like phosphogen stores, non oxidative enzymes and lactic acid tolerance can be effectively improved by repetition method. For the improvement of phosphogen stores and alactacid metabolism short sprints lasting for about 6-8 seconds are effective. These sprints should be done in series of 3-4 repetitions with recovery in between the series. The lactic acid tolerance can be improved by exercising at maximal or near maximal intensity for about 40-45 seconds or even little longer. This should be repeated 3-5 times with complete recovery in between the repetitions. The lactic acid tolerance can be improved by exercising at maximal or near maximal intensity for about 40 – 45 seconds or even little longer. This should be repeated 3 – 5 times with complete recovery in between the repetitions.

MATERIALS AND METHODS

The research scholar conducted a two months training programme to analyze the effect of repetition training method on performance of 200 meter Sprinters. The subjects were divided into two equal groups of 12 subjects each:

- (1) Repetition Group (A)
- (2) Control Group (B)

The training was given five days in a week for the experimental group and no training was given to the control group.

Administration of Programme (Training Programme for Repetition Group)

- The volume of the work load was less in the preparatory phase and it was increased gradually.
- The repetitions distances were given of 80 mts, 100 mts, 120 mts, 150 mts, 200 mts, and 250 mts.
- For checking the intensity, heart rate was kept about 180 beats/min. and above.
- Next work load was given after the complete recovery.

The criterion measure chosen for this study was the performance of 200 meters recorded up to higher 1/10th of a second. For experimental group, the intensity, recovery and volume were shown in table-1.

Table – 1
Load parameters of Repetition Training Method

<i>Method</i>	<i>Intensity</i>	<i>Recovery</i>	<i>Volume</i>
Repetition Method	90 – 100%	Complete Recovery or 3 – 10 min.	6 – 10 Repetitions

RESULT OF THE STUDY

In order to find the effect of Repetition Training Method on performance of 200 meters sprinters one tailed 't' test was applied at 0.05 level of significance.

The mean difference of Repetition Group and Control Group and their values are presented in table 2.

Table – 2
One tailed ‘t’ ratio for Repetition Group and Control Group

Group	N	Pre - Test	Post - Test	DM	SE _D	‘t’ ratio
Repetition Group (A)	12	31.85	30.47	1.38	0.32	4.25*
Control Group (B)	12	31.0	31.1	-0.1	0.38	-0.26

*Significant at 0.05 level, $t_{0.05}(11) = 2.20$ (for one tailed ‘t’ test)

Table – 2 clearly revealed that experimental group (A) obtained ‘t’ value of 4.25 was found to be significant at 0.05 levels, since this value was found higher than the tabulated value 2.20. Whereas control group did not show any significant improvement indicating ‘t’ value – 0.26.

The graphical representation for means of experimental and control group are presented in figure – 1

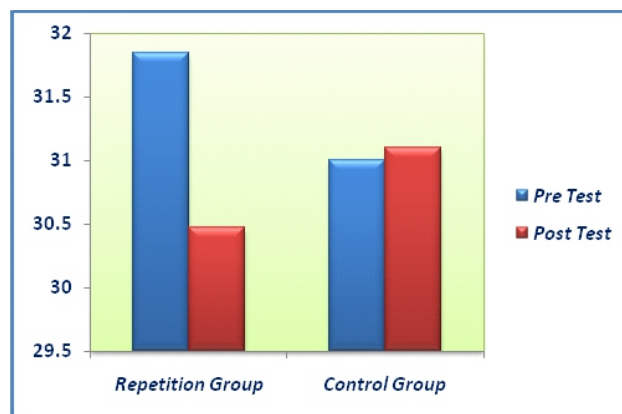


Figure – 1

DISCUSSION OF FINDINGS

Analysis of data revealed that the experimental group trained by Repetition Training Method improves significantly the performance of 200 meter sprinters whereas the control group did not show any significant improvement. Control group did not show any significant improvement in spite of their regular physical training as physical education students. Such result might have occurred due to the fact that a specific type of speed and speed endurance training was lacking for the control group. It was found that Repetition Group significantly superior to the Control Group. This finding clearly indicates that the Repetition Training Method is effective for improving the performance of 200 meter sprinters. This finding also give an idea of nature of 200 meters sprint which require speeds, as well as speed endurance and might be one of the causes for this type of findings.

CONCLUSION

Conclusively, result of the present study suggests that two months of Repetition Training Method enhances the performance of 200 meter sprinters.

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