

EFFECT OF INTERVAL TRAINING ON PLAYING ABILITY OF VOLLEYBALL PLAYERS



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Abstract:

Interval training is a type of physical training that involves burst of high intensity work interspersed with periods of recover. The high intensity periods are typically at or close to near maximum exertion, while the recovery periods may involve either complete rest or activity of lower intensity. The purpose of the present study was to find out the effect of interval training on playing ability of volleyball players. To accomplish the purpose of the study the data were collected from the Volleyball players of RTMNU Nagpur University Nagpur who were participating in the Intercollegiate Tournaments. The sources of data were intercollegiate Volleyball players of Nagpur city. 40 male intercollegiate volleyball players were selected randomly. The age of the subjects ranging from 18-25 years. To collect the data Russell- Lange Volleyball Test was administered. t- test was employed to determine the difference among the Volleyball players for each variable independently. The players were divided into two equal groups on the basis of mean performance of pre-test score. The groups were equated and distributed into two homogenous groups - experimental & control. Result revealed that significant difference found in post-test of control and experimental group.

Keywords: Interval Training, Playing Ability & Volleyball Players.

Introduction:

Each one of us has the right to access to physical activity for the overall development of personality. Fitness is more than a product of exercise, Exercise is necessary to obtain and maintain fitness. Interval Training is a type of physical training that involves burst of high intensity work interspersed with periods of recovery. Interval training can refer to organization of any cardiovascular workout and is prominent in many sports training. This training is preferred by coaches because of its effectiveness in cardiovascular build- up and also its ability to make more well rounded runners/ riders. It also improves aerobic capacity to exercise longer at varying intensities. it is also useful for increasing the stamina and capability of sprinters and other players. this training has so many advantages like regular supervision is not required, encourage a runner or player, improves blood circulation, save time, less training aids required, improves anaerobic performance, adapt the body to racing condition including race pace and high levels of lactate in the muscle, accomplish more overall work with less

physiological strain in comparison with continuous running training method. Interval training utilizes the body to energy producing system: the aerobic and the anaerobic. The aerobic system is the one that allow you to walk or run for several miles, that uses oxygen to convert carbohydrates from various sources throughout the body into energy. The anaerobic system on the other hand draws energy from the carbohydrates stored in the muscles for short burst of activity such as sprinting, jumping or lifting heavy objects.

Objective of the Study:

The main objective of the study was to find out the effect of Interval Training on Playing Ability of Volleyball Players.

Methodology:

The data were collected from Intercollegiate Volleyball players of Rashtasant Tukadoji Maharaj Nagpur University, Nagpur. 40 male volleyball intercollegiate players ranging from 18 to 25 of age group were selected randomly from Rashtasant Tukadoji Maharaj Nagpur University, Nagpur. Russell-Lange volleyball test was administered to collect the data.

Statistical Analysis:

t-test was employed to determine the difference among the volleyball players for each variable independently. To set the hypothesis the level of significance was set at 0.05 level of confidence which was considered adequate for the purpose of the study. The researcher divided the selected players into two equal groups on the basis of mean performance of pre-test score. The group were equated and distributed into two homogeneous groups namely- experimental group and control group.

Table No-I

Table showing summery of Mean, SD and t-ratio for the data on Serving Test between Pre & Post Test of Control Group

Control Group	Mean	SD	MD	SE	t-ratio
Pre- test	29.60	2.037			
Post –test	30.70	1.689	1.10	0.591	1.859

Table-I shows that the pre-test of control group is 29.60 and post test is 30.70 and Mean difference is 1.10. The standard deviations are 2.037 and 1.689. The standard error between both the tests is 0.591. After statistical analysis the t value is found to be 1.859 which is less than the tabulated t-value of 2.09 at 0.05 level of confidence. Hence there is no significant difference between pre-test and post test of control of serving test.

Table No-II

Table showing summary of Mean, SD and t-ratio for the data on Volleyball Test between Pre & Post Test of Control Group

Control Group	Mean	SD	MD	SE	t-ratio
Pre- test	4.50	1.05	0.55	0.280	1.959
Post -test	5.05	0.68			

Table -II shows that the pre-test of control group is 4.50 and post test is 5.05 and Mean difference is 0.55. The standard deviations are 1.05 and 0.68. The standard error between both the tests is 0.280. After statistical analysis the t value is found to be 1.959 which is less than the tabulated t-value of 2.09 at 0.05 level of confidence. Hence there is no significant difference between pre-test and post test of control of Volleying test.

Table No-III

Table showing summary of Mean, SD and t-ratio for the data on Serving Test between Pre & Post Test of Experimental Group

Experimental Group	Mean	SD	MD	SE	t-ratio
Pre- test	29.55	2.70	3.70	0.938	3.942
Post -test	33.25	3.21			

Table-III shows that the pre-test of experimental group is 29.55 and post test is 33.25 and Mean difference is 3.70. The standard deviations are 2.70 and 3.21. The standard error between both the tests is 0.938. After statistical analysis the t value is found to be 3.942 which are greater than the tabulated t-value of 2.09 at 0.05 level of confidence. Hence there is a significant difference of serving test between pre-test and post test of experimental group.

Table No-IV

Table showing summary of Mean, SD and t-ratio for the data on Volleying Test between Pre & Post Test of Experimental Group

Experimental Group	Mean	SD	MD	SE	t-ratio
Pre- test	4.45	0.99	1.70	0.375	4.530
Post -test	6.15	1.34			

Table-IV shows that the pre-test of experimental group is 4.45 and post test is 6.15 and Mean difference is 1.70. The standard deviations are 0.99 and 1.34. The standard error between both the tests is 0.375. After statistical analysis the t value is found to be 4.530 which are greater

than the tabulated t-value of 2.09 at 0.05 level of confidence. Hence there is a significant difference of Volleying test between pre-test and post test of experimental group.

Table No-V

Table showing summary of Mean, SD and t-ratio for the data on Serving Test between Post Test of Control and Experimental Group

Post -test	Mean	SD	MD	SE	t-ratio
Control Group	30.70	1.68	2.55	0.811	3.144
Experimental Group	33.25	3.21			

Table -V shows that the post test of control group and experimental group is 30.70 and 33.25 and Mean difference is 2.55. The standard deviations are 1.68 and 3.21. The standard error between both the groups is 0.811. After statistical analysis the t value is found to be 3.144 which are greater than the tabulated t-value of 2.09 at 0.05 level of confidence. Hence there is a significant difference of serving test between post test of control and experimental group.

Table No-VI

Table showing summary of Mean, SD and t-ratio for the data on Volleying Test between Post Test of Control and Experimental Group

Post -test	Mean	SD	MD	SE	t-ratio
Control Group	5.05	0.68	1.10	0.338	3.251
Experimental Group	6.15	1.34			

Table-VI shows that, the post test of control group and experimental group is 5.05 and 6.15 and Mean difference is 1.10. The standard deviations are 0.68 and 1.34. The standard error between both the groups is 0.338. After statistical analysis the t value is found to be 3.251 which are greater than the tabulated t-value of 2.02 at 0.05 level of confidence. Hence there is a significant difference of volleying test between post test of control and experimental group.

Findings:

From table I & II it reveal that serving test between the pre-test and post test of control group $t=1.859$ and volleying test between the pre test and post test of control group $t= 1.959$ which are less than the tabulated $t_{0.05(19)}=2.09$ at 0.05 level of confidence. Hence there is no significant difference between pre-test and post-test of control of serving test and volleying test.

From table III & IV it revel that serving test between the pre & pos test of experimental group $t=3.942$ and volleying test between the pre test and post test of experimental group $t= 4.530$ which are greater than the tabulated $t_{0.05(19)}=2.09$ at 0.05 level of confidence.

Hence there is significant difference between pre-test and post- test of experimental group of serving test and volleying test.

From table V & VI it reveal that serving test between post test of control and experimental group $t=3.144$ and volleying test between the post test of control and experimental group $t= 3.251$ which are greater than the tabulated $t_{0.05(38)}=2.02$ at 0.05 level of confidence. Hence there is significant difference between post-test of control and experimental group of serving test and volleying test.

Conclusion:

Pre-test and post test of Control Group

Serving Test $t= 1.859$

Volleying Test $t= 1.959$

Which are less than the tabulated $t_{0.05(19)}=2.09$ at 0.05 level of confidence, because there was no training schedule or specific training was not given to the control group. Hence there is no significant difference between pre-test and post- test of control group of serving test and volleying test.

Pre-test and post test of Experimental Group

Serving Test $t= 3.942$

Volleying Test $t= 1.959$

Which are greater than the tabulated $t_{0.05(19)}=2.09$ at 0.05 level of confidence, because training schedule was given to the experimental group. Hence there is significant difference between pre-test and post- test of experimental group of serving test and volleying test.

Post-test of Control & Experimental Group

Serving Test $t= 3.144$

Volleying Test $t= 3.251$

Which are greater than the tabulated $t_{0.05(38)}=2.02$ at 0.05 level of confidence, because training schedule was given to the experimental group and no specific training were given to the control group. Hence there is significant difference between pre-test and post- test of experimental group of serving test and volleying test.

References:

- Blough Dintiman George, "Effect of Various Training Program on Running Speed", Research Quarterly Oct. 1964.
- Chimera Nicole J., "Effect of Polymetric Training on Muscle-Activation Strategies and Performance in Female Athletes, 2004 Jan-March. Pp24-31, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC 385258>.
- Anug W Htin, Importance of Qualified Trainers and their Prerequisites, Snipes Journal, Jan 1982.

- Franco M, “Effects of aerobic training on the exercise- induced decline in short passing ability in Junior Soccer Players”, Applied Physiology, Nutrition and Metabolism, 2008.
- Kansal Devinder K., Textbook of Applied Measurements, Evaluation and Sports Selection, Sports & Spiritual Science Publication, New Delhi, 1996.
- Megavin Robert J., ”The Effect of Different Warm up Exercise of Varying intensities on the Speed of Leg Movement”, Completed Research Health Physical Education And Recreation, 1967.

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