

Research Paper :

## Effect of intensive and extensive training methods as treatment -I and Treatment-II on jumping ability of volleyball players

SAMEY SINGH AND OMPAL SINGH

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### ABSTRACT

A descriptive profile of Senior Secondary school boys volleyball players were developed for 36 players belonging to Muzaffarnagar district. They were placed in three groups 12 in each *i.e.* Group- I extensive, Group-II Intensive and Group –III control group. Two training methods as treatment-I and II were administered to compare the effectivity of both the training on two selected variables of motor ability *i.e.* jumping ability for smash and jumping ability for block. Data were obtained two times *i.e.* test-I before starting the training, test-II after completion of three months training in first phase and test-III after completion of further three months *vice versa* training methods in second phase. The calculated value of 'f-statistics' seems to be significant in the cases jumping ability for smash and block. On the other hand, the average value of extensive was better in improving both the jumping ability for block and smash in comparison of intensive training method.

See end of the article for authors' affiliations

Correspondence to:

**SAMEY SINGH**  
Singhania University,  
JHUNJHUNU  
(RAJASTHAN) INDIA

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Cuba is one of the top teams recently in the world. It has set new standards of vertical jumps approximately 350cm. Many players of Cuba are jumping more higher than 350cm.

It has been observed that the Indian volleyball players are having approximately 310cm vertical jump. It is very less as compared to 'Cuba' so it is the high time to research the best means which can help to develop the ability of vertical jump of Indian volleyball players. So that Indian team can also exist at international level of competitions.

Kodandaruniah (1978) said that 'Indian volleyball players are inferior in talent such as jumping ability'. Keeping in view, the above mentioned facts, investigator has selected secondary and senior secondary school boys as subjects for this project. It is hoped that during this age best results can be achieved and comprehensive knowledge should be adopted to create interests among the volleyball players and trainers for achieving their goals.

The purpose of this study was to compare the affectivity of both the training methods as treatment-I and treatment-II on the motor ability (jumping ability) of volleyball players.

### METHODOLOGY

Investigator has taken experimental study to collect the data after administering his two designed training schedules as for extensive training method, having intensity of 40 to 60% and for intensive training method having intensity of 60 to 80%. Means were used to develop the selected variable for the study which are given in details. 36 male subjects were selected randomly and their ages were ranging from 14.714 to 15.153 for administering treatment-I (extensive training in first phase and intensive training in second phase) and treatment-II (intensive training in first phase and extensive training in second phase). Sargent's jump tests were used for measuring jumping ability. Scoring was used for this study as per the standard norms set by the Sargent's. Microsoft excel calculator was used. This software provides all the essential informations of the statistical calculation on the basis of advance level.

### OBSERVATIONS AND DISCUSSION

Table 1 and 2 show the results and discussion of findings that the treatment-II is rejected at 0.05 level of significance in case of improving jumping ability for smash in both the phases of training but treatment-I was found

**Table 1: For smash-sargent jump**

<b>Treatment II (Extensive/Intensive Group)</b>			
Sr. No.	Test No. I (cm)	Test No. II (cm)	Test No. III (cm)
Avg.	37.33	41.5	43.52
<b>Treatment I (Extensive/Intensive Group)</b>			
Avg.	35.08	45	48.19
<b>No treatment (Control Group)</b>			
Avg.	36.44	38.73	39.96
F test (IEC) T-II	8:37	2:08	4:39
F test (EIC) T-I	1:46	0:17	0:44

significantly more effective in case of improving jumping ability for smash in both the phases of training.

Table 1 shows the calculated values of F-test for jumping ability for smash which are not equal *i.e.* 8.37 and 1.46 at the initial stage or study state test before starting the training, when comparing both training groups *i.e.* intensive and extensive training groups to the control group. Here, the calculated f-test value of intensive group is high. It fell in the rejection region. This indicates the variances of performances of the players.

The calculated values of F-test, 2.08 and 0.17 have significant difference *i.e.* 1.91 after receiving three months proposed intensive and extensive trainings in first phase where as both the groups received three months training in *vice versa* in next three months. After second phase of training the calculated value of F-tests were 4.39 and 0.44, may have insignificance difference *i.e.* 03.95. This suggests the calculated value of F-statistics seems to be significant in first phase of training and insignificant in second phase of training while providing extensive training, to the group after intensive training at 0.05 levels. This reflects that the statuses of both the training groups are significant because calculated differences of f-test values of both the treatments are 1.04 which is not negligible or insignificant due to other factors which play vital role in improving performance of volleyball players. These factors may be balance diet, proper rest, sleep, relaxation etc. and reason because extensive training have no significant effect after intensive training. The following conclusion can be drawn from Table 1.

Name of training methods	Phase I	Phase II	Ranking
Treatment I (Extensive + Intensive)	45.00	48.19	I
Treatment II (Intensive + Extensive)	41.50	43.52	II

On the other hand, the improvement in jumping ability as an average, value of intensive and extensive training

in first phase are 4.17 and 2.02 where as value of extensive and intensive training in second phase are 9.92 and 3.09, reflects that both the training equally significant in increasing the average jumping ability of the players after providing the training but treatment -I is more positive or significant than treatment-II in first phase and second phase of training.

Table 2 shows the calculated value of F-test for jumping ability of volleyball players for block is not equal *i.e.* 01.56 and 0.21 at the initial stage of study state test before starting the training, when comparing both training groups *i.e.* intensive and extensive training groups to the control group.

**Table 2: For block-sargent jump**

<b>Treatment II (Extensive/Intensive Group)</b>			
Sr. No.	Test No. I (cm)	Test No. II (cm)	Test No. III (cm)
Avg.	33.64	38.26	40.94
<b>Treatment I (intensive/extensive Group)</b>			
Avg.	32.5	41.03	45.82
<b>No Treatment (control group)</b>			
Avg.	31.67	34.42	35.14
F test (IEC)Treatment-II	1:56	3:31	6:39
F test (EIC)Treatment-I	0:21	0:03	2:10

The calculated value of F-test 03.31 and 0.03 have insignificant difference *i.e.* 03.28 after receiving three months proposed intensive and extensive training in first phase where as both the groups received three months training in *vice versa* in next three months. After second phase of training the calculated value of F-tests are 06.39 and 02.10, may have significance difference *i.e.* 04.29. This suggests the calculated value of F-statistics seems to be insignificant at 0.05 levels in treatment-II, the calculated value of f-test is high and it falls in the rejection region, it seems to be less effective whereas treatment-I, the calculated value is low, it falls in the acceptance region, this indicates the variance of performances of the players of extensive group is less than the variance of the performance of player of intensive group. This indicates that the training provided to the extensive + intensive group has significant effect on the performance of volleyball players. The following conclusion can be drawn from Table 2.

Name of training methods	Phase I	Phase II	Ranking
Treatment I (Extensive + Intensive)	41.03	45.82	I
Treatment II (Intensive + Extensive)	38.26	40.94	II

On the other hand the improvement in jumping ability of volleyball players for block as an average, value of intensive and extensive training in first phase are 4.62 and 2.68 where as value of extensive and intensive training in second phase are 8.53 and 4.79, reflects that both the trainings significant by increased the average jumping ability of the volleyball players for block after providing the training but treatment -I is more positive or significant than treatment-II in first phase and second phase of training.

### Conclusion:

– The results and discussion of above findings show that the treatment-II rejected at 0.05 level of significance in case of improving jumping ability for block in both the phases of training but treatment -I is significantly more effective in case of improving the jumping ability for block in both the phases of training.

– The treatment-II is rejected at 0.05 level of significant because in case of improving jumping ability for smash, investigator has used intensive training. The main reason behind the effectiveness may be more of intensity (80%) / training load in respect to the jumping performance of spike or smash in first phase of training which put adverse effect in second phase of training *i.e.* extensive (intensity-60%).

– The treatment-II is rejected at 0.05 level of significant because in case of improving jumping ability

for block, investigator has used intensive training. The main reason may be effectiveness is of more intensity(80%) / training load in respect to the jumping ability for block in first phase of training which put adverse effect in second phase of training *i.e.* extensive (intensity-60%).

### Recommendations:

– Extensive training method should be followed by intensive training method if trainers want to develop jumping ability of volleyball players for smash or spike and block.

– Intensive training method should not be followed by extensive training method if trainers want to increase jumping ability for smash and block.

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Authors' affiliations:

**OMPAL SINGH**, Department of Physical Education,  
Meerut University, MEERUT (U.P.) INDIA

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