

Positive Outcome of Plyometric Exercises in Enhancement of volleyball skills of school volleyball players

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Abstract:-

The study "Positive Outcome of Plyometric Exercises in Enhancement of volleyball skills of school volleyball players", for the study 35 Volleyball players were selected of age group 14 to 16 years of age. The players were given the plyometric exercise training for 2 months 90 minutes daily excluding Sundays. The SAI Volley ball skills selected were Accuracy in service test, Wall volley test, Medicine ball throw. The pre tests were conducted before plyometric training and scores were recorded, after giving of 2 months training again the SAI volleyball skill were tested and post test scores were recorded, which were further statistically analyzed and 't' test were performed to compare the outcome of plyometric training and conclusion was drawn that there is positive outcome / significant effect of plyometric training on the SAI Volleyball skills test of school Volleyball players.

Key words – SAI Volleyball skills, Volleyball players, Plyometric Exercises, Plyometric training.

Scholar observed that Volleyball is a very popular

and widely played games in schools and colleges, Universities, many factory workers, office staff, Army men play volleyball in their leisure time for the sake of entertainment and health. Therefore scholar decided to study the outcome of Plyometric Exercises in Enhancement of volleyball skills of school volleyball players

For this study scholar selected 35 players from various schools of age 14 to 16 average age is 16.5 years and to see the effect of plyometric exercises on the Volleyball skills he selected SAI volleyball skill Tests which are as follows

1. Accuracy in service test
2. Wall volley test
3. Medicine ball throw

Hypothesis:-

There is Positive Outcome of Plyometric Exercises in Enhancement of volleyball skills of school volleyball players

Methodology :-

The Scholar designed Plyometric exercise Program of 3 months selected daily 90 minutes in evening from 4 pm to 5.30 pm excluding Sundays scholar selected 35 Volley ball players from Schools for his research, Before starting 3 months training of plyometric exercises, The Scholar conducted the SAI Volley ball skills test before giving the

plyometric exercises training to players and collected the scores (pre test), then mean and standard deviation of scores were calculated. The exercises were selected by the scholar 1) Medicine ball exercise, 2) Jump on and off the box, 3) bonds, 4) Hurdle hopping, 5) Box jump, 6) Depth Jump, 7) Two leg hopping, 8) Single leg hopping, 9) Depth jumps, 10) Incline Pushups.

Table No.1 Mean and standard deviation (SD) of pre test scores of SAI Volleyball Skill Tests.

Sr. No	VOLLEYBALLSKILLS	Pretest Mean	Standard Deviation
i	Accuracy in service	1.4	0.72
ii	Wall Volley test	1.34	0.68
iii	Medicine ball throw	1.6	0.75

Data Source: - From the actual scores recorded of pretest scores of SAI Volleyball Skill Tests.

Discussion: -

The above table no. 1 reveals the scores (mean & standard deviation) before the start of the plyometric training for pre test of Accuracy in service was 1.4 and standard deviation was 0.72. The Wall Volley test mean was 1.34 and standard deviation was 0.68. The Medicine ball throw mean was 1.6 and standard deviation was 0.75.

After giving 3 months training of plyometric exercises, The training schedule was of 90 minutes

daily excluding Sundays before exercise warm-up exercises were done. The following exercise training were given to the Volleyball Players 1)Medicine ball exercise, 2)Jump on and off the box, 3)bonds, 4)Hurdle hopping, 5)Box jump, 6)Depth Jump, 7)Two leg hopping, 8)Single leg hopping, 9)Depth jumps, 10)Incline Pushups. After completion of exercises cool down exercises are performed

After the completion of training of 3 months again the SAI Volleyball skills test were performed on the players to record the post test scores after the training. The recorded scores were statistically treated and the mean and standard deviations was calculated, statistically analysis are given in the following table no2

Table No.2 Mean and standard deviation (SD) of post test scores of SAI Volleyball Skill Tests.

Sr. No	VOLLEYBALLSKILLS	Post test Mean	Standard Deviation
i	Accuracy in service	2.31	0.80
ii	Wall Volley test	2.14	0.71
iii	Medicine ball throw	2.6	0.73

Data Source: - From the actual scores recorded of pretest scores of SAI Volleyball Skill Tests.

Discussion: -

The above table no. 1 reveals the scores (mean &standard deviation) after the end of the plyometric training for post test of Accuracy in service was 2.31 and standard deviation was 0.80. The Wall Volley test mean was 2.14 and standard deviation was 0.71. The Medicine ball throw mean was 2.6 and standard deviation was 0.73.

Assessment of results of the plyometric training given to Volleyball players, the data of pre test score and post test scores is statistically treated, this assessment is made by calculating 't' values and comparing it with tabulated 't' values. the resultant data is furnished in table no 3

Table No.3 Mean and standard deviation of Pre test and post test scores with calculated and tabulated 't' values respectively of SAI Volleyball Skill Tests.

Sr. No	VOLLEYBALLSKILL	PRE TEST		POST TEST		Calculated 't'	Tabulated 't'
		mean	sd	mean	sd		
i	Accuracy in service	1.4	0.72	2.31	0.80	5.055	2.74 at 0.01 level of significance and 34 df
ii	Wall Volley Test	1.34	0.68	2.14	0.71	5.00	
iii	Medicine ball throw	1.6	0.75	2.6	0.73	5.88	

Data Source :- From the scores of Pre test and post test mean and standard deviation of SAI Volleyball skill test scores ; calculated and tabulated 't' values respectively

Discussion:-

The above table no 3 is the statistical evidence depicting the scores (mean &standard deviation) before the start of the plyometric training for pre test of Accuracy in service mean was 1.4 and standard deviation was 0.72. The Wall Volley Test mean was 1.34 and standard deviation was 0.68. The Medicine ball throw mean was 1.6 and standard deviation was 0.75. It also show the scores of (mean &standard deviation) after the plyometric training (post test scores) of Accuracy in service was 2.31 and standard deviation was 0.80. The Wall Volley Test mean was 2.14 and standard deviation was 0.73. The Medicine ball throw mean was 2.6 and standard deviation was 0.73

Table No.4 Calculated 't'and tabulated 't' values of SAI Volleyball Skill Tests.

Sr. No	VOLLEYBALLSKILL	Calculated 't'	Tabulated 't'
i	Accuracy in service	5.055	2.74 at 0.01 level of significance and 34 df
ii	Wall Volley Test	5.00	
iii	Medicine ball throw	5.88	

Data Source :-

From the scores SAI Volleyball skill test scores ; calculated and tabulated 't' values .

The above table no 4 shows the Calculated 't' values of Accuracy in service i.e. 5.055 Wall Volley Test is 5.0 and Medicine ball throw is 5.88 respectively, whereas the tabulated 't' value is 2.74 at 0.01 level of significance and 34 is degree of freedom, hence the hypothesis is proved that there is there is positive significant effect of plyometric exercise training on SAI Volleyball skills of players.

Conclusion: -

The results proves the hypothesis is proved that there is positive outcome and significant effect of plyometric exercise training on SAI volleyball skill of players. The plyometric exercise adds an edge and enhances the performance of school volleyball players.

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