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Research Article

Effect of Skill Related Training on Skill Performance among Volleyball Players

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ABSTRACT

Initially called 'Mintonette', the sport of volleyball was designed in 1895 by William G Morgan, in Holyoke, Massachusetts at a YMCA. The modern volleyball is highly specialized in almost all the major skills of volleyball. It is a sport for young and old for men and women. The character of volleyball is altogether not quite the same as that of different games discipline. In order to find the effect of skill related training on skill performance among volleyball players. To find the skill performance the study is being framed. Total 40 students from YMCA College of physical education and Nandanam Arts and Science College, Chennai, has taken as samples for the study and 12 weeks of training have given for 5 days a week. With the help of various literatures for Skill related training the training is being framed. For Skill related variables the following Test were conducted- Russel Lange Volleyball Test for Serving Ability, Brady Volleyball Test for attacking ability, Helman Volleyball (forearm) Test for forearm/dig passing and Helman Volleyball (Face pass/overhead pass) Test. To compare the skill related performance of volleyball player's independent t-test will be employed. The significance level will be set as $p<0.05$. For Experimental Design the static group comparison design was used for the study. To compare the selected skill related variables ANCOVA is being used at the significant level of 0.05. It is concluded that the effect of skill related training for volleyball players has improved the Attacking ability, serving ability, Forearm and Overhead passing ability significantly. It is concluded that the Experimental group was significantly improved than the control group.

1. Introduction

Volleyball is presently one of the big five universal games, and the FIVB, with its 218 partnered national organizations, is the biggest worldwide sporting league on the planet. Throughout the most recent decade especially, volleyball has seen remarkable development. With the achievement of its reality rivalry, for example, the World Championships, Olympic Games, the World League, Grand Prix, World Cup, and World Grand Champions Cup, the degree of investment at all levels universally kept on developing exponentially. The beach volleyball phenomenon, although hugely visible, is still just in its infancy. From the first FIVB World Tour event, a little more than ten years back, to the mind-boggling observer and TV accomplishment of 'Beach' at the Atlanta 1996 and Sydney 2000 Olympic Games, beach volleyball has opened up volleyball to a totally new market (FIVB, 2009).

1.1. Volleyball Fundamental Skills

Volleyball is a game that requests acing a mind boggling range of abilities on account of rotation from playing front line positions to back line positions and continuously moving from setting up offensive plays to finishing offensive plays. Also, the

players have to move rapidly from offense to defense. During some random succession in volleyball, a player must be set up to execute a range of skills. The fundamental volleyball abilities are serving, passing, setting, spiking and blocking.

1.2. Volleyball Tests

Tests in volleyball take two structures - the skill test and the written test. The skill test gauges students or player's capacity to play out specific aspects of the game, for example, serving or passing. A portion of these tests has been associated with general volleyball playing capacity. The written test estimates such factors as information on rules, history of volleyball and strategy. A volleyball test can be of most extreme adequacy if it meets the accompanying prerequisites. First, is the test substantial, or does the test measure precisely what it means to gauge? For instance, does a wall volley test really measure general playing capacity? Second, is the test reliable, or does it measure reliably what it expects to quantify? For instance, if the wall volley test is given to a class on various occasions, will comparable outcomes be obtained? In this study the following skill related tests were conducted to measure the proficiency of the subjects: Russel-Lange Volleyball Test for Serving Ability, Brady Volleyball Test for attacking ability, Helman Volleyball (forearm) test for dig pass and Helman Volleyball (Face pass/overhead pass) Test.

2. Methodology

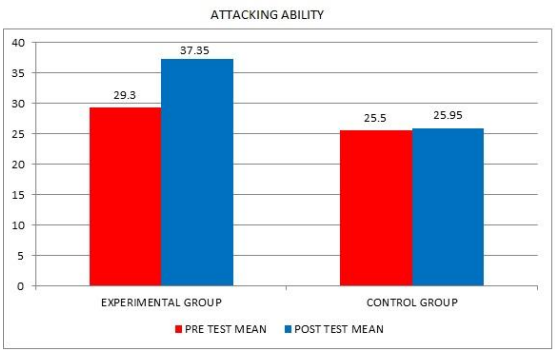
In order to find the skill performance, the study is being framed. Total 40 students from YMCA College of physical education and Nandanam Arts and Science College, Chennai, has taken as samples for the study and 12 weeks of training have given for 5 days a week. With the help of various literatures for skill related training the training is being framed. For skill related variables the following test was conducted. Russel-Lange Volleyball Test for Serving Ability, Brady Volleyball Test for attacking ability, Helman Volleyball (forearm) Test for dig pass and Helman Volleyball (Face pass/overhead pass) Test. To check the reliability data will be analyzed using the SPSS version 20. The data will be presented as the descriptive statistics such as mean and standard deviation. To compare the Skill related performance of volleyball player's independent t-test will be employed. The significance level will be set as $p<0.05$. For Experimental Design the static group comparison design was used for the study. Two groups were made as Experimental and control Group each comprising of 20 subjects. To compare the selected skill related variables ANCOVA is being used at the significant level of 0.05.

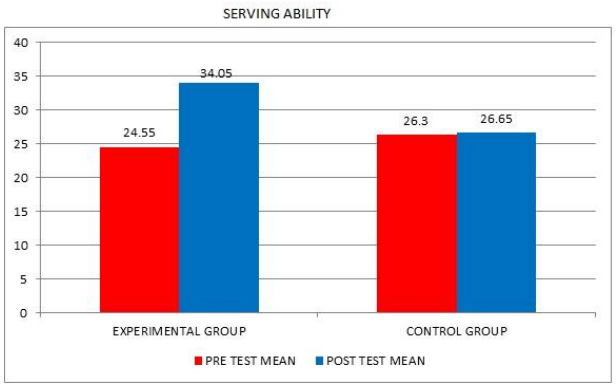
3. Results and Findings

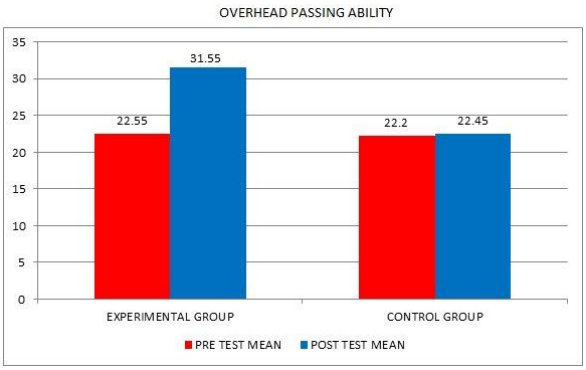
Table 1: PRE, POST MEAN AND STANDARD DEVIATION OF EXPERIMENTAL AND CONTROL GROUPS ON SKILL TEST

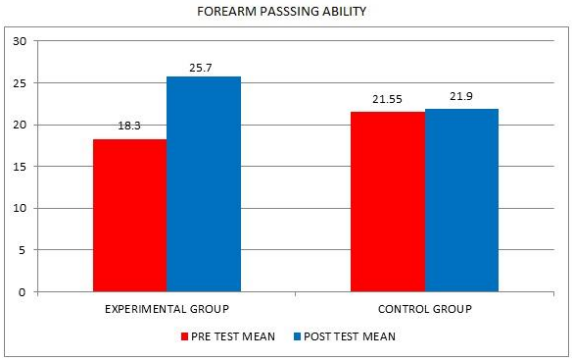
Variable	Groups	Test	Mean	Standard deviation	Mean difference	't' Ratio	Sig (2 tailed)	% of Changes
Attacking Ability	Experimental	Pre	29.300	9.570	8.050	10.109	.000	27.47%
		Post	37.350	11.263				
	Control	Pre	25.500	6.541	.4500	.610	.549	1.76%
		Post	25.950	5.82				
Serving Ability	Experimental	Pre	24.550	11.339	9.500	13.999	.000	38.69%
		Post	34.050	10.470				
	Control	Pre	26.300	5.371	.3500	.431	.671	1.33%
		Post	26.650	5.018				
Overhead passing Ability	Experimental	Pre	22.550	5.725	9.000	12.795	.000	39.91%
		Post	31.550	5.266				
	Control	Pre	22.200	5.511	.2500	.449	.658	1.12%
		Post	22.450	4.946				
Forearm/ Dig pass Ability	Experimental	Pre	18.300	3.045	7.400	9.495	.000	40.43%
		Post	25.700	5.685				
	Control	Pre	21.550	5.185	.3500	.717	.482	1.62%
		Post	21.900	3.998				

**Table t- ratio at 0.05 level of confidence for 19 (df) = 2.093.*









The result of the study also produced 27.47% of changes in Bradly volleyball Test due to volleyball skill performance training, and 1.76% of changes in the control group.

The result of the study also produced 38.69 % of changes in Russell Launge volleyball Test due to volleyball skill performance training, and 1.33 % of changes in the control group.

The result of the study also produced 39.91 % of changes in Helman overhead pass Test due to volleyball skill performance training, and 1.12 % of changes in the control group.

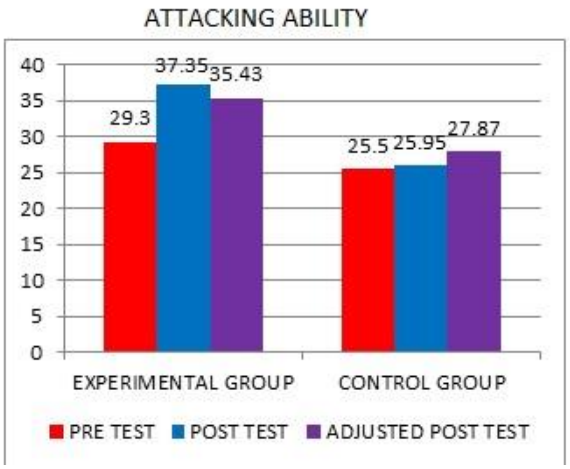
The result of the study also produced 40.43 % of changes in Helman Forearm pass Test due to volleyball skill performance training, and 1.62 % of changes in the control group.

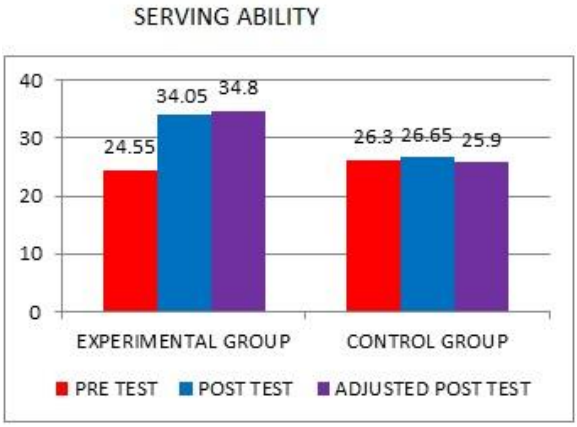
Table 2: ANALYSIS OF COVARIANCE SKILL RELATED VOLLEYBALL TEST OF EXPERIMENTAL AND CONTROL GROUPS

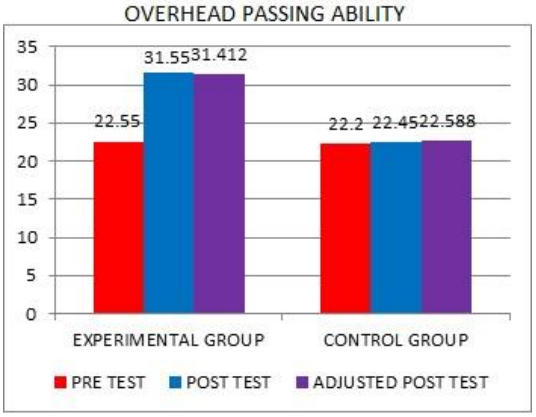
Variable	Test	Experimental Group	Control Group	S O V	Sum of Squares	df	Mean Squares	'F' Ratio	Significance
Attacking Ability	Pre test Mean	29.300	25.500	B	144.400	1	144.400	2.149	.151
	SD	9.570	6.54	W	2553.200	38	67.189		
	Post test Mean	37.350	25.950	B	1299.600	1	1299.600	16.163	.000*
	SD	11.263	5.826	W	3055.500	38	80.408		
	Adjusted Post-test Mean	35.430	27.870	B	540.873	1	540.873	44.709	.000*
				W	447.610	37	12.098		
Serving Ability	Pre test Mean	24.550	26.300	B	30.625	1	30.625	.389	.537
	SD	11.339	5.371	W	2991.150	38	78.714		

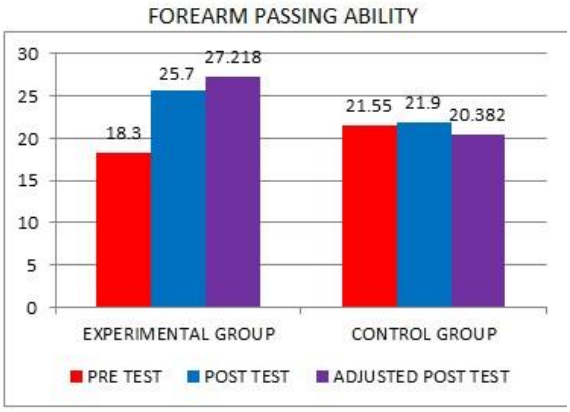
	Post test Mean	34.050	26.650	B	547.600	1	547.600	8.124	.007
	SD	10.470	5.018	W	2561.500	38	67.408		
	Adjusted Post-test Mean	34.800	25.900	B	784.042	1	784.042	79.604	.000*
				W	364.422	37	9.849		
Overhead passing Ability	Pre test Mean	22.550	22.220	B	1.225	1	1.225	0.39	.845
	SD	5.725	5.511	W	1200.150	38	31.583		
	Post test Mean	31.550	22.450	B	828.100	1	828.100	31.725	.000*
	SD	5.266	4.946	W	991.900	38	26.103		
	Adjusted Post-test Mean	31.412	22.588	B	778.003	1	778.003	114.816	.000*
				W	250.716	37	6.776		
Forearm/ Dig passing Ability	Pre test Mean	18.300	21.550	B	105.625	1	105.625	5.841	0.21
	SD	3.045	5.185	W	687.150	38	18.083		
	Post test Mean	25.700	21.900	B	144.400	1	144.400	5.977	.019
	SD	5.685	3.998	W	918.000	38	24.158		
	Adjusted Post-test Mean	27.218	20.382	B	405.045	1	405.045	47.073	.000*
				W	318.370	37	8.605		

**Table F-ratio significant at 0.05 level of confidence for 1 and 38 (df) = 4.096 and 37 (df) = 4.104.*









The table and the charts explain that there was significant improvement in the experimental group than the control group in all skill related performance due to 12-week training on skill relater variables. The above table shows that the F-ratio of the experimental group and the control group is 44.709 % in attacking skills, 79.604 after serving, 114.816 in forearm passing and 47.073 in overhead passing respectively. It is stated that due to the effect of volleyball skill training the skill performance of the players was significantly improved. It is also stated that the experimental group was significantly improved than the control group.

4. Conclusions

1. The results concluded that the overall skill related variables such as serving ability, attacking ability, forearm/dig passing ability and overhead passing ability are significantly improved for experimental group when compared with control group after 12 weeks of skill related volleyball training. Hence, the volleyball players at any level of play, they must have a skill related volleyball training in their training schedule for improving them skill related variables.
2. The result between pre-test and post-test differentiation of experimental group had more significant improvement in all skill performance variables such as attacking ability, serving ability, forearm passing ability, underarm passing ability. Hence, this skill related volleyball training is one of the important modules to improve the skill related variables.
3. The control group did not improve any skill performance variables in this study.

5. Recommendations

1. The outcome of the study stated that, the physical preparation, skill preparation and tactical preparation of training schedule impact over the skill performance of the volleyball players.
2. It is highly recommended to conduct this study on a large number of samples.
3. The women players could be used similarly like this study.
4. Similar study may assess for the different level of players and categories.

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