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RESEARCH ARTICLE

EFFECT OF SPECIFIC BASKETBALL DRILLS ON SELECTED SHOOTING PERFORMANCE PARAMETERS OF HIGH SCHOOL MALE BASKETBALL PLAYERS

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ABSTRACT

Objective: The study was designed to investigate the effects of specific basketball drills on selected shooting performance of High school male basketball players. Thirty school male basketball players selected from Ragavendra Matric Higher secondary school, Vadavalli Coimbatore

Methods: The age ranged between 15 and 17 years. They were divided into two equal groups considered as experimental group and control group. Experimental group underwent specific basketball drill training for the period of 8 weeks. The control group was not given any training. The selected shooting performance parameter was assessed by lay-up shot, jump shot and free throw shot 't' test was used to find out the significant improvement of skill performance among school level male basketball players. 0.05 level of confidence was fixed to test the level of significance.

Results: The result of this of layup shoot, jump shot and free throw shoot has been improved significantly due to effect of specific drills training with the limitation of (diet climate, life style) status and previous training the result of the present study coincide findings of the investigation done by different experts in the field of sports sciences.

Conclusion: Due to the influence of eight weeks specific basketball drill training significantly improved layup shot, jump shot, and free throw shot of high school male basketball players.

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INTRODUCTION

The objective of the offense in basketball is accuracy of each attempted shot. Most players recognize this but only the better shooters learn how to practice correctly and work at improvement year round. Since most of this practice sessions are alone, every player must be his own critic. This means he/she must understand the proper mechanics that affect the success, or failure, of every shot. Every player must know this range and know what a good shot. Therefore, before examine the techniques associated with the various shot, a good basketball player is expected to have in his arsenal, here are the principles at work in every scoring shot from anywhere on a basketball court. These are divided two parts, the mental aspect and the physical aspect Goyal (2008). In basketball a jump shot or jumper is an attempt to score a basket by jumping, usually straight up, and in mid-jump, propelling the ball in an arc into the basket. It is accomplished by the player bringing his or her elbow up until it is aligned with the hoop, then sent towards the hoop in a high arc. It is considered the easiest shot to make from a distance. The purposes of the jump are to shoot from a higher position and therefore make it more difficult for the defender to block. It is the most effective in open play but can prove to be hard when there is a taller

player in front of the shooter Bill (2002). The free throw should be one of the easiest shots in basketball Okubo and Hubbard (2006).

Since the player is all alone, 15 feet from the basket, with no defence and no close distractions. All the player has to do is get ready, aim, cock the ball and shoot. A skilled intercollegiate team should shoot at least 80 per cent from the free throw line, but very few teams are able to accomplish this task. Successful free throw shooting requires good concentration, but most importantly good mechanics in the shot. However, good mechanics alone cannot account for success in shooting free throws Kozar *et al.* (1995) reported that practice free throw percentage for all free throws were significantly higher than game free throw percentage for an NCAA team over two seasons.

MATERIALS AND METHODS

The subjects of this study were thirty male school level Basketball players who aged between 15 and 17 years. The subjects were divided into two group as experimental group and control group. Experimental group was given specific basketball drill training and the control group was not given any training for five days per week for the period of eight weeks. The evaluated parameters were Layup shot, Jump shot and Free throw shot (Johnson basketball test battery). The parameters were measured before and after the specific

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basketball drill training programme and the effects of the training programme were examined. The collected data were analyzed by computing mean and standard deviation. In order to find out the significant improvement if any 't' test was applied.

Training Programme: During the training period the experimental group underwent the training of selected suitable specific drills for eight weeks in addition to their daily routine activities as per the curriculum. Experimental group underwent training program on five alternate days per week for a period of eight weeks. The maximum duration of training session in all the days lasted between 45 and 50 minutes approximately. All the subjects involved in this study were carefully monitored throughout training program.

Statistical Procedure

Statistical analysis was performed using SPSS version 20. Paired t-test was used for within-group comparison and independent t-test was used for between-groups comparison. The significance level of the test was considered $p \leq 0.05$.

Table 1. Computation of "t" ratio between pre and post test means of control and experimental group on layup shot

Group	Lay up shot	mean	Std. Deviation	Std. Error Mean	t
Experimental group	Pre test	3.70	0.61	0.15	9.28*
	Post test	5.20	0.67	0.17	
Control group	Pre test	3.53	0.63	0.16	1.97
	Post test	3.06	0.96	0.24	

Significant at 0.05 level confidence (2.14)

Table I reveals the computation of 't' ratio between pre test and post on layup shot of high school male basketball players. The mean values of pre and post test of experimental group were 3.70 and 5.20 respectively. Since the obtained 't' ratio 9.28 was greater than the required table value 2.14, it was found to be statistically significant at 0.05 level of confidence and the mean value of pre and post test 't' ratio between pre test and post on Layup shot of control group were 3.53 and 3.06 respectively. Since the obtained "t" ratio 1.97 was less than the required table value 2.14, it was found to be statistically not significant at 0.05 level of confidence for degrees of freedom 1 and 14.

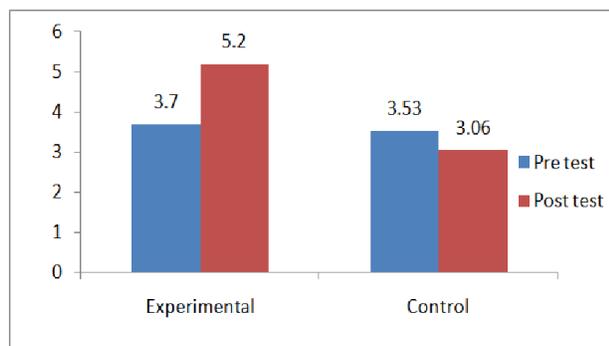


Figure 1. Bar diagram showing the mean difference of pre and post-test on Layup shot of high school male basketball players

The result clearly indicated the layup shot of experimental group significantly improved due to the influence of eight weeks basketball drill training and control group had not shown significantly improved.

Table II reveals the computation of 't' ratio between pre test and post on jump shot of high school male basketball players. The mean values of pre and post test of experimental group were 4.53 and 7.80 respectively. Since the obtained 't' ratio 13.16 was greater than the required table value 2.14, it was found to be statistically significant at 0.05 level of confidence. the 'mean values of pre test and post on jump shot of control group were 4.20 and 3.73 respectively. Since the obtained "t" ratio 1.97 was less than the required table value 2.14, it was found to be statistically not significant at 0.05 level of confidence for degrees of freedom 1 and 14.

Table 2. Computation of "t"-ratio between pre and post test means of control and experimental group on jump shot

Group	Jump shot	mean	Std. Deviation	Std. Error Mean	t
Experimental group	Pre test	4.53	0.63	0.16	13.16*
	Post test	7.80	0.86	0.22	
Control group	Pre test	4.20	0.77	0.20	1.97*
	Post test	3.73	0.70	0.18	

Significant at 0.05 level confidence (2.14)

The result clearly indicated the jump shot of experimental group significantly improved due to the influence of eight weeks basketball drill training and control group had not shown significantly improved.

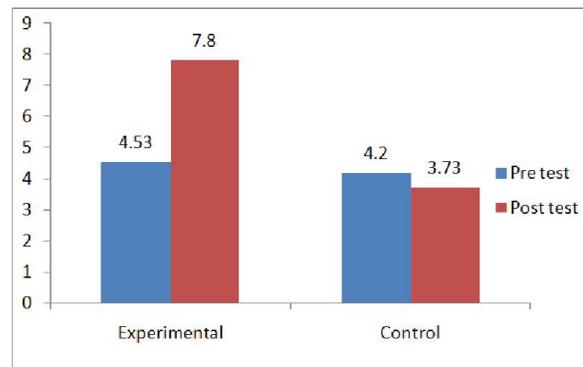


Figure 2. Bar diagram showing the mean difference of pre and post-test on Jump shot of high school male basketball players

Table 3. Computation of "t" ratio between pre and post test means of control and experimental group on free throw shot

Group	Free throw shot	mean	Std. Deviation	Std. Error Mean	t
Experimental group	Pre test	5.33	0.61	0.15	10.17*
	Post test	7.86	1.12	0.29	
Control group	Pre test	4.60	0.63	0.163	1.60*
	Post test	4.13	0.74	0.19	

*Significant at 0.05 level confidence (2.14)

Table III reveals the computation of 't' ratio between pre test and post on free throw shot of high school male basketball players. The mean values of pre and post test of experimental

group were 5.33 and 7.86 respectively. Since the obtained 'ratio 10.17 was greater than the required table value 2.14, it was found to be statistically significant at 0.05 level of confidence. The mean values of pre test and post on free throw shot of control group were 4.60 and 4.13 respectively. Since the obtained "t" ratio 1.60 was less than the required table value 2.14, it was found to be statistically not significant at 0.05 level of confidence for degrees of freedom 1 and 14. The result clearly indicated the free throw shot of experimental group significantly improved due to the effect of eight weeks basketball drill training and control group had not shown significantly improved.

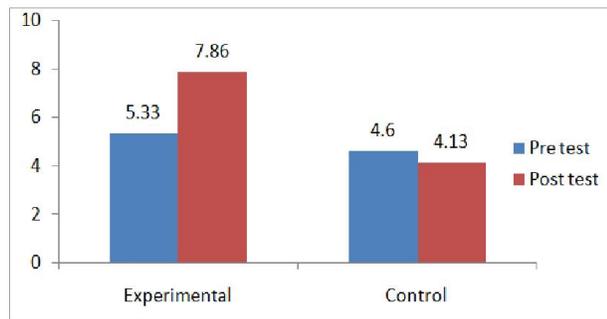


Figure 3. Bar diagram showing the mean difference of pre and post-test on Free-throw shot of high school male basketball players

RESULTS AND DISCUSSION

The present study experimental the effect of specific drills training on selected basketball shooting parameters variables of high school male. The results of this study indicated that basketball drills training improved selected basketball shooting parameters such as layup shoot, jump shot and free throw shoot. The findings of the present study had similarity with the findings of the investigators referred in this study. Miura et.al (1992) suggested that the 1-legged repeated rebound jump is effective in improving both contact time and jumping height in the lay-up shot jump. Stuart and Roger *et al.* (2002) suggest that such adjustments are easier to make for those players who regularly shoot from long range two different short-term training programs on the physical and technical abilities of adolescent basketball players. Ronald and Grau *et al.* (2003) the advantage of the layup for close-in shooting is demonstrated.

Results of numerical parameter studies are also presented, demonstrating the ranges of allowable shooting error for the various shots, and thus also identifying the shots with highest probability of success. The result of this of layup shoot, jump shot and free throw shoot has been improved significantly due to effect of specific drills training with the limitation of (diet climate, life style) status and previous training the result of the present study coincide findings of the investigation done by different experts in the field of sports sciences.

Conclusion

Based on the results, the following conclusions have been arrived.

1. There was a significant improvement in layup shot of high school male, due to the influence of specific basketball drill training.
2. There was a significant improvement in jump shot of high school male, due to the influence of specific basketball drill training.
3. There was a significant improvement in free throw shot of high school male, due to the influence of specific basketball drill training.

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