



IMPACT OF TWO DIFFERENT PREPARATION ON SELECTED SKILL RELATED FITNESS VARIABLES AMONG MALE BASKETBALL PLAYERS

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ABSTRACT:

The main objective of this study was to find out the Impact of Weight Training and Circuit Training on Speed among male Basketball players. To achieve the purpose of the study, sixty male Basketball Players were randomly selected as subjects from Veer Narmad South Gujarat University, Surat Affiliated College Students. The age of the subjects were ranged between 17 to 25 years. The study was formulated as pre and post-test random group design, in which sixty subjects were divided into three equal groups. Experimental Group-I (N=20; CT Group) performed the Circuit training Group. The Experimental Group-II (N=20, WT group) performed Weight Training program. Control group (N=20; CG) did not undergo any specific training programmed but there practiced the regular game. The analysis of covariance was used to analyze the significant difference, if any among the groups. Three groups were compared, whenever they obtained 'F' ratio for adjusted post-test was found to be significant, the Scheffe's test to find out the paired mean differences, if any. The 0.05 level was fixed as the level of significance to test the 'F' ratio obtained by the analysis of covariance, which was considered as an appropriate. The result of the study indicates due to training on Speed and Resting Pulse rate has been improved significantly.

KEYWORDS: Weight Training; Circuit training, Speed & ANACOVA

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INTRODUCTION:

The Power lifting has two essential capabilities in an exercise program: unsteadiness

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and backing. Insecurity during an activity drives you to connect with your center muscles to keep up with your equilibrium, making the activity more troublesome. Preparing the center with unsteadiness fosters serious areas of strength for a framework for your legs and back, which forestalls wounds and assists you with benefiting from your work-out everyday practice. The Preparation can likewise be utilized to help your back as you work on creating center soundness. For example, you can put the ball against the wall and rest your back up against it as you do a squat. To add lower back help to a stomach crunch, sit ready, walk your feet out before you until you are lying back ready with an unbiased spine, and do crunches from that point. Rutherford and Jones (1986) proposed that variations from Obstruction preparing brought about better coordination of synergistic and stabilizer muscles. Behm (2002) and partners detailed the impact of temperamental circumstances, as instigated by sitting on Swiss ball on force creation of the knee extenders. Robert analyzed the impact of Swiss ball practices on center solidness and expressed that there is an improvement in center strength among the subjects.

OBJECTIVE OF THE STUDY:

The main objective of this study was to find out the purpose of the study will be to find out The Effect of Weight Training and Circuit Training on Speed, Explosive Power, Agility and Vital capacity of college male Basketball players.

- To analyses to compare the superiority between Weight training and Circuit training on male Basketball players.
- Effect of Weight Training on college male Basketball players.
- Effect of Circuit Training on college male Basketball players.
- To prepare appropriate Circuit training program at Basketball players.
- To prepare appropriate Weight training program at Basketball players.

METHODOLOGY:

SELECTION OF SUBJECTS:

Sixty male Basketball players were selected from area of affiliated colleges of Veer Narmad south Gujarat University, Surat who have represented at inter collegiate tournament twice, were randomly selected as subjects for the study. This experimental study was administered to only two experimental groups and one control group of 20 subjects each. The age of subjects ranged from 18 to 25 years only.

CRITERION MEASURES

Sr. No	Variables	Tests Items	Unit of Measurement
1	Speed	50m Dash	Time was recorded to the nearest 1/10 th second
2	Explosive Power	Standing Broad Jump	Distance was recorded to the meter
3	Agility	Shuttle Run	Time was recorded to the



		(10mts × 4 shuttle run)	nearest 1/10 th second
4	Vital Capacity	Digital Dry Spirometer	Score was recorded in liter

EXPERIMENTAL DESIGN:

This experimental study was administered to only two experimental groups and one control group of 20 subjects each. For this purpose Group I underwent Circuit training, Group II underwent Weight training and Group III acted as control group.

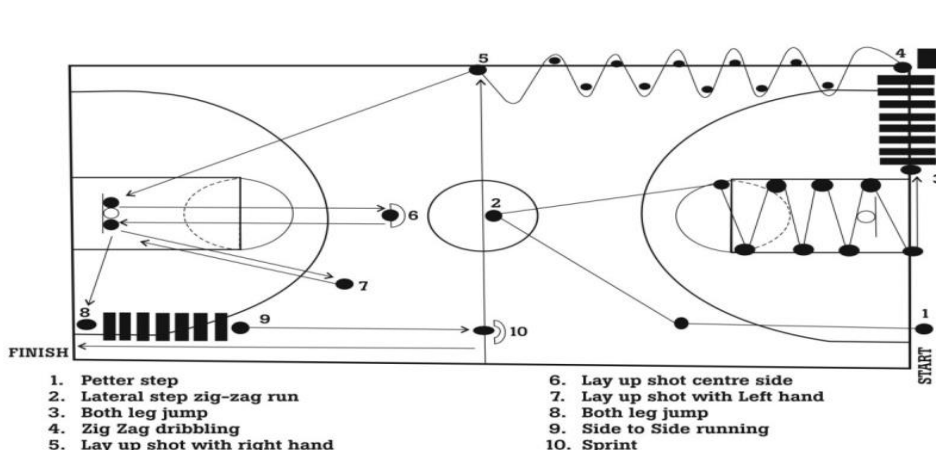
EXPERIMENTAL GROUP - 1 – (Circuit Training Group)

The Exercises as Follows

Petter Step, Both leg jump, Vertical Jump, Zig-Zag Dribble, Lay up Shot with Right Hand, Lay up Shot with Centre Side, Lay up Shot with Left Hand, Both leg jump, Side To Side Running and Forward Sprint.

Training Period is 6 Week, Duration In Between 20 To 25 Sec. Intensity – 60% To 90%, Rest Time 4 Min to 8 Min.

Fig: 1



1

EXPERIMENTAL GROUP – 2 (Weight Training Group)

Pac Fly, Bench Press, Abs Crunches, Squat, Dynamic Lunges, Standing Calf Rise.

TABLE – A

TRAINING SCHEDULE FOR WEIGHT TRAINING GROUP

¹ B Chittibabu and N Akilan, “Effect of sports Specific Endurance Circuit Training on Peak Anaerobic Power and Aerobic Power of High School Male Basketball Players during Competitive Season”, **International journal of current advance Reasearch**, 2:1 (August, 2013): 48 – 50.



Weight Training Exercise	1-week	2-week	3-Week	4-Week	5-Week	6-Week
Pac Fly	‡ 5*6 (60%) 60	‡3*5 (60.5%) 55	‡3*4 (70%) 50	‡3*3 (70.5%) 45	‡3*2 (80%) 40	‡3*2 (80.5%)35
Abs Crunches	‡ 5*6 (60%) 60	‡3*5 (60.5%) 55	‡3*4 (70%) 50	‡3*3 (70.5%) 45	‡3*2 (80%) 40	‡3*2 (80.5%)35
Bench press	‡ 5*6 (60%) 60	‡3*5 (60.5%) 55	‡3*4 (70%) 50	‡3*3 (70.5%) 45	‡3*2 (80%) 40	‡3*2 (80.5%)35
Squat	‡ 5*6 (60%) 60	‡3*5 (60.5%) 55	‡3*4 (70%) 50	‡3*3 (70.5%) 45	‡3*2 (80%) 40	‡3*2 (80.5%)35
Dynamic lunges	‡ 5*6 (60%) 60	‡3*5 (60.5%) 55	‡3*4 (70%) 50	‡3*3 (70.5%) 45	‡3*2 (80%) 40	‡3*2 (80.5%)35
Standing Calf raise	‡ 5*6 (60%) 60	‡3*5 (60.5%) 55	‡3*4 (70%) 50	‡3*3 (70.5%) 45	‡3*2 (80%) 40	‡3*2 (80.5%)35

STATISTICAL TECHNIQUE

Analysis of covariance (ANCOVA) statistical technique was used to test the significant difference among the three groups. If the adjusted post-test results were significant, the Scheffe’s post hoc test was used to determine the paired mean significant difference

ANALYSIS AND INTERPRETATION OF DATA

TABLE 1.1

ANALYSIS OF COVARIANCE OF PRE-TEST, POST-TEST AND ADJUSTED POST-TEST MEAN ON SPEED OF EXPERIMENTAL GROUPS AND CONTROL GROUP

(Scores in Second)

Test	Ex Group I Circuit training	Ex Group II Weight training	Control Group	Sources of Variance	Sum of Square	Df	Mean of Square	Obtain F ratio
Pre Test Mean	6.08	6.09	6.10	Between	0.007	2	0.003	0.01
	0.41	0.53	0.47	Within	12.95	57	0.23	
Post Test Mean	5.72	5.86	6.09	Between	1.42	2	0.71	3.23*
	0.46	0.47	0.47	Within	12.56	57	0.22	
Adjusted	5.73	5.86	6.08	Between	1.28	2	0.64	7.49*



Post Test Mean				Within	4.79	56	0.08	
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***F.05 (2, 57) = 3.16**

RESULTS OF SPEED

Table 1.1 shows the analysis data on Speed. The pre-test means of Speed were 6.08 for Circuit training, 6.09 for Weight training, 6.10 for control group. The obtain “F” ratio of 0.01 was lesser than the table F-ratio 3.16. Hence the pre-test was not significant at 0.05 level for the degree of freedom 2 and 57.

The post-test mean of Speed were 5.72 for Circuit training, 5.86 for Weight Training, and 6.09 for control group. The obtained “F” ratio of 3.23 was higher than the table F-ratio 3.16. Hence the post –test was significant at 0.05 level for the degree of freedom 2 and 57.

The adjusted post –test mean of Speed were 5.73 for Circuit training, 5.86 for Weight training, 6.08 for Control group. The obtained “F” ratio of 7.49 was higher than the table F-ratio 3.16. Hence the post –test was significant at 0.05 level for the degree of freedom 2 and 56.

Since, three groups were compared, whenever the obtain “F”-ratio for adjusted post test was found to be significant, the Scheffe’s test to find out the paired mean difference and it was presented in Table 1.2.

TABLE 1.2
ORDERED SCHEFFE’S POST HOC TEST MEAN DIFFERENCES
ON SPEED AMONG THREE GROUPS
(Scores in second)

Experimental Group I (Circuit Training)	Experimental Group II (Weight Training)	Control Group	Mean Difference	Confidence Interval Value
5.73	5.86	-	0.13	0.17
5.73	-	6.08	0.35*	
-	5.86	6.08	0.22*	

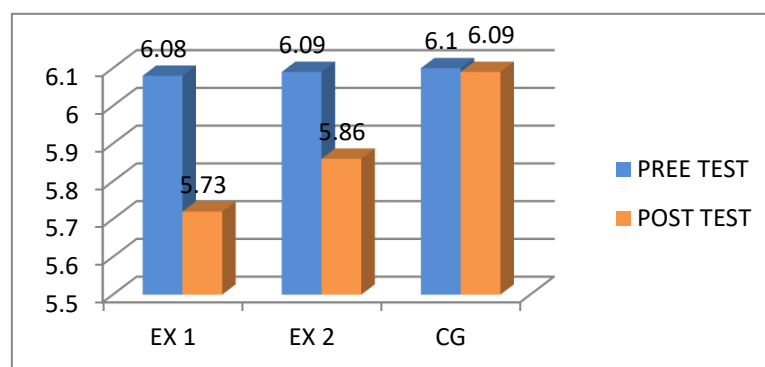
*Significance at 0.05 level.



Table 1.2. shows the Scheffe's post –hoc test result .The ordered adjusted final mean difference for Speed of experimental groups I, II and control group were tested for significant at 0.05 level against confidential interval value.

The mean difference between Circuit training and Control group 0.35, Weight training and Control group was 0.22 respectively, and it was seen to be greater than the confidential interval value of 0.17. Hence the above comparisons were significant. But, Circuit training and Weight training group mean difference 0.13 which was lesser then the confidential interval value of 0.17, which was not significant.

The Mean value of Speed are shown graphically in Fig .1.1



RESULT

Speed

The experimental groups Circuit training and Weight training showed significant decrease in the Speed 5.73 and 5.86 respectively from pre to post training.

The Circuit Training group was found significantly better than ($p < .05$) the Weight Training group and Control Group ,Weight Training group was better than the Control group in decreasing the Speed as measured by 50 Meter Dash test (Sec.) therefore Circuit Training is more suitable training programme for the improvement of the Speed among the basketball players.

Conclusion:

1. Circuit Training group produced a significant improvement in Speed better than the Weight training group.



2. Speed was favored to Circuit training group greater than Weight training and control group of college male Basketball players

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