

INFLUENCE OF ALTERNATE PACE RUNNING ON SPEED AND SPEED ENDURANCE AMONG COLLEGE MEN STUDENTS

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ABSTRACT

The purpose of the study was designed to examine the effect of Alternate pace running on speed and speed endurance of college men students. For the purpose of the study, thirty men students from SRKR Engineering College, Bhimavaram, West Gadavari District, Andhra Pradesh were selected as subjects. They were divided into two equal groups. Each group consisted of the fifteen subjects. Group I underwent Alternate pace running for three days per week for twelve weeks. Group II acted as control who did not undergo any special training programme apart from their regular physical education programme. The following variables namely speed and speed endurance were selected as criterion variables. All the subjects of two groups were tested on selected dependent variables by using 50 mts run and 150 mts run respectively at prior to and immediately after the training programme. The analysis of covariance was used to analyze the significant difference, if any among the groups. The .05 level of confidence 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 results of the study showed that there was a significant difference between Alternate pace running group and control group on speed and speed endurance. And also it was found that there was a significant improvement on speed and speed endurance due to twelve weeks of Alternate pace running.

Keywords : Alternate pace running, speed, speed endurance, college men students.

INTRODUCTION

Alternate pace running is also often called as "threshold" pace. Alternations, as the term implies, "alternate" paces from slightly faster than faster to slightly slower. The theory is that at your blood levels of lactate start to rise. So, you run that pace or faster until you've accumulated a bit of lactate. Then, you slow down, while still running fairly briskly. This encourages your body to learn to use the accumulated lactate via a mechanism known as the lactate shuttle. The physiology is complex, but in a nutshell, what's going on is that lactate is produced in the first, high-energy step of burning glucose—a process that does not require oxygen. The resulting lactate, however, requires oxygen to burn—oxygen that is in increasingly short supply in hard-working leg muscles.

METHODOLOGY

The purpose of the study was designed to examine the effect of Alternate pace running on speed and speed endurance of college men students. For the purpose of the study, thirty men students from SRKR Engineering College, Bhimavaram, West Gadavari District, Andhra Pradesh were selected as subjects. They were divided into two equal groups. Each group consisted of the fifteen subjects. Group I underwent Alternate pace running for three days per week for twelve

weeks. Group II acted as control who did not undergo any special training programme apart from their regular physical education programme. The following variables namely speed and speed endurance were selected as criterion variables. All the subjects of two groups were tested on selected dependent variables by using 50 mts run and 150 mts run respectively at prior to and immediately after the training programme. The analysis of covariance was used to analyze the significant difference, if any among the groups. The .05 level of confidence was fixed as the level of significance to test the 'F' ratio obtained by the analysis of covariance, which was considered as an appropriate.

ANALYSIS OF THE DATA

Speed

The analysis of covariance on speed of the pre and post test scores of Alternate pace running group and control group have been analyzed and presented in Table I.

TABLE I
ANALYSIS OF COVARIANCE OF THE DATA ON SPEED OF PRE AND POST TESTS
SCORES OF ALTERNATE PACE RUNNING AND CONTROL
GROUPS

Test	Alternate Pace Running Group	Control Group	Source of Variance	Sum of Squares	df	Mean Squares	Obtained 'F' Ratio
Pre Test							
Mean	8.48	8.47	Between	0.0013	1	0.0013	0.09
S.D.	0.12	0.11	Within	0.3973	28	0.0142	
Post Test							
Mean	8.15	8.45	Between	0.6750	1	0.6750	18.36*
S.D.	0.11	0.10	Within	1.0297	28	0.0368	
Adjusted Post Test							
Mean	8.15	8.46	Between	0.7269	1	0.7269	471.25*
			Within	0.0416	27	0.0015	

* Significant at .05 level of confidence.

(The table values required for significance at .05 level of confidence for 2 and 28 and 2 and 27 are 3.34 and 3.35 respectively).

The table I shows that the adjusted post-test means of Alternate pace running group and control group are 8.15 and 8.46 respectively on speed. The obtained "F" ratio of 471.25 for adjusted post-test means is more than the table value of 3.35 for df 1 and 27 required for significance at .05 level of confidence on speed. The results of the study indicated that there was a significant difference between the adjusted post-test means of Alternate pace running group and control group on speed.

Speed endurance

The analysis of covariance on speed endurance of the pre and post test scores of Alternate pace running group and control group have been analyzed and presented in Table II.

TABLE II
ANALYSIS OF COVARIANCE OF THE DATA ON SPEED ENDURANCE OF PRE AND POST TESTS SCORES OF ALTERNATE PACE RUNNING AND CONTROL GROUPS

Test	Alternate Pace Running Group	Control Group	Source of Variance	Sum of Squares	df	Mean Squares	Obtained 'F' Ratio
Pre Test							
Mean	20.40	20.39	Between	0.0013	1	0.0013	0.06
S.D.	0.15	0.11	Within	0.6573	28	0.0235	
Post Test							
Mean	20.11	20.36	Between	0.4563	1	0.4563	14.05*
S.D.	0.15	0.14	Within	0.9097	28	0.0325	
Adjusted Post Test							
Mean	20.11	20.36	Between	0.4899	1	0.4899	92.80*
			Within	0.1425	27	0.0053	

* Significant at .05 level of confidence.

(The table values required for significance at .05 level of confidence for 2 and 28 and 2 and 27 are 3.34 and 3.35 respectively).

The table II shows that the adjusted post-test means of Alternate pace running group and control group are 20.11 and 20.36 respectively on speed endurance. The obtained "F" ratio of 92.80 for adjusted post-test means is more than the table value of 3.35 for df 1 and 27 required for significance at .05 level of confidence on speed endurance. The results of the study indicated that there was a significant difference between the adjusted post-test means of Alternate pace running group and control group on speed endurance.

CONCLUSIONS

1. There was a significant difference between Alternate pace running group and control group on speed and speed endurance.
2. And also it was found that there was a significant improvement on selected criterion variables such as speed and speed endurance due to Alternate pace running.

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