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Effects of Varied Regimens of Training Program on Speed and Agility of Industrial Training Students

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Abstract

The objective of this study is to determine the Effects of Varied Regimens of Training Program on Speed and Agility of Industrial Training Students. To achieve the purpose of this study 45 male students were selected from Industrial training students, Karnataka and they were randomly assigned into three groups of 15 in each. Group-I (n=15) underwent calisthenics exercise training, group-II (n=15) underwent own body resistance training and group-III (n=15) acted as control. The duration of the training programme is 12 weeks with three sessions per week on alternative days. Speed and agility priorly assessed and directly after 12 weeks of training. Treatment groups performed calisthenics exercise training and own body weight training, the control group did not practice any specific trainings. The obtained data were analyzed statistically by 't' test, analysis of covariance, ANOVA and scheffee's post hoc test. Findings of the study revealed that significant improvement on the selected variables of speed and agility whereas significant decrease during the detraining period.

Keywords: Calisthenics Exercise Training, Own Body Resistance Training Group, Speed and Agility.

Introduction

Calisthenics are exercises consisting of a variety of gross motor movements; often rhythmical and generally without equipment or apparatus. They are, in essential, body-weight training. They are intended to increase body strength, body fitness and flexibility through movements such as pulling or pushing oneself up, bending, jumping or swinging, using only one's body weight for resistance; usually conducted in concert with stretches. When performed vigorously and with variety, calisthenics can provide the benefits of muscular and aerobic conditioning, in addition to that improving psychomotor skills such as balance, agility and coordination. Urban Calisthenic is a form of street workout, calisthenics groups perform exercise routinely in urban areas. Individuals and groups are trained to perform advanced calisthenics skills such as muscle ups, bars spins and both front and back levers. Sports teams and military units often perform leader-directed group calisthenics as a form of synchronized physical training (often including a customized "call and response" routine) to increase group cohesion and discipline. Calisthenics are also popular as a component of physical education in primary and secondary schools over the globe.

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Bodyweight exercises are strength training exercises that do not require free weights but the individual's own weight provides the resistance for the movement. Movements such as the push-up, the pull-up, and the sit-up are some of the most common bodyweight exercises. Bodyweight exercises are the ideal choice for individuals who are interested in fitness but do not require any equipments. While performing some of the exercises may require some type of equipments but the majority of bodyweight exercises require none. For those exercises, require equipments which are common items found in the household are usually sufficient (such as a bath towel for towel curls), or substitutes can usually be improvised (for example, using a horizontal tree branch to perform pull ups).

Statement of the Problem

The purpose of the study is to find out the Effects of Varied Regimens of Training Program on speed and Agility of Industrial Training Students.

Hypotheses

1. The calisthenics exercise training can significantly improve the speed and agility of the industrial training students.
2. The own body resistance training can significantly improve the speed and agility of young children.

3. The calisthenics exercise training may significantly improve better than the own body resistance training and the control group on Speed and Agility of Industrial Training Students.
4. The own body resistance training may significantly improve better than the control group on speed and agility of young children.

Methodology

The purpose of the study is to find the Effects of the Varied Regimens of Training Program of the calisthenics exercise training to achieve the aim of the Industrial Training Students. The subjects were selected from Industrial Training Students, Karnataka, India. The subject's age ranged from 25-35years and the students voluntarily participated in this study. The selected variables were tested by speed (50 meter Dash) and agility (T agility). Pre-test data was taken before the training and the post test data was collected after the completion of a twelve week training period. The subjects were randomly assigned by the different groups. The first group (n=15, CEG group) underwent calisthenics exercise training, the second group (n=15; OBWTG group) underwent own body resistance training, the third group (n=15, CG group) did not have any specific trainings. Based on this study 't' ratio was applied to find out the significant difference between the pre and post tests with regards to the selected variables and analysis of covariance was applied.

Table 1

Significance of mean gain /loses between pre and post test of calisthenics exercise training on the varied regimens of training program on speed and agility of industrial training students

Variable	Test	Mean	S.D	M.D	S.E.M	't' ratio
Speed	Pre-Test	8.6233	.43669	.42600	.07491	5.686
	Post -Test	8.1973	.38709			
Agility	Pre-Test	13.0007	.77780	.49933	.05736	8.706
	Post -Test	12.5013	.71598			

Table 2

Significance of mean gain /loses between pre and post test of own body resistance training on the varied regimens of training program on speed and agility of industrial training students

Variable	Test	Mean	S.D	M.D	S.E.M	't' ratio
Speed	Pre-Test	8.5973	.47528	.24000	.10528	2.280
	Post -Test	8.3573	.31567			
Agility	Pre-Test	12.8993	.74107	.22867	.06249	3.659
	Post -Test	12.6707	.72648			

Table 3

Significance of mean gain /loses between pre and post test of control group on the varied regimens of training program on speed and agility of industrial training students

Variable	Test	Mean	S.D	M.D	S.E.M	't' ratio
Speed	Pre-Test	8.6013	.36273	.01400	.00909	1.540
	Post –Test	8.5873	.34755			
Agility	Pre-Test	12.9767	.72266	.01333	.00909	1.468
	Post –Test	12.9633	.72739			

Table 4
Analysis of variance on pre test means among cetg, obrtg, and cg on the varied regimens of training program on speed and agility of industrial training students

Variable	Source of variance	Sum of Squares	Df	Mean Square	F	Sig.
Speed	Between Groups	.006	2	.003	.016	.984
	Within Groups	7.674	42	.183		
	Total	7.680	44			
Agility	Between Groups	.084	2	.042	.075	.928
	Within Groups	23.470	42	.559		
	Total	23.554	44			

Table 5
Analysis of variance on post test means among cetg, obrtg, and cg on the varied regimens of training program on speed and agility of industrial training students

Variable	Source of variance	Sum of Squares	df	Mean Square	F	Sig.
Speed (In Seconds)	Between Groups	1.153	2	.577	4.671	0.015
	Within Groups	5.184	42	.123		
	Total	6.337	44			
Agility (in Seconds)	Between Groups	1.639	2	.819	1.566	0.221
	Within Groups	21.973	42	.523		
	Total	23.612	44			

Table 6
Analysis of variance on post test means among cetg, obrtg, and cg on the varied regimens of training program on speed and agility of industrial training students

Variables	Source of variance	Sum of Squares	df	Mean Square	F	Sig.
Speed in Seconds	Between Groups	1.227	2	.613	10.72*	.000
	Within Groups	2.345	41	.057		
Agility in Seconds	Between Groups	1.765	2	.882	25.28*	.000
	Within Groups	1.431	41	.035		

Table 7
Scheffee's adjusted post- hoc means of ceg, obetg and cg of industrial training students on speed

CEG	OBWTG	CG	M.D	C.I
8.188	8.363	-	0.175	0.249
8.188	-	8.59	0.403	0.249
8.188	-	8.59	0.403	0.25

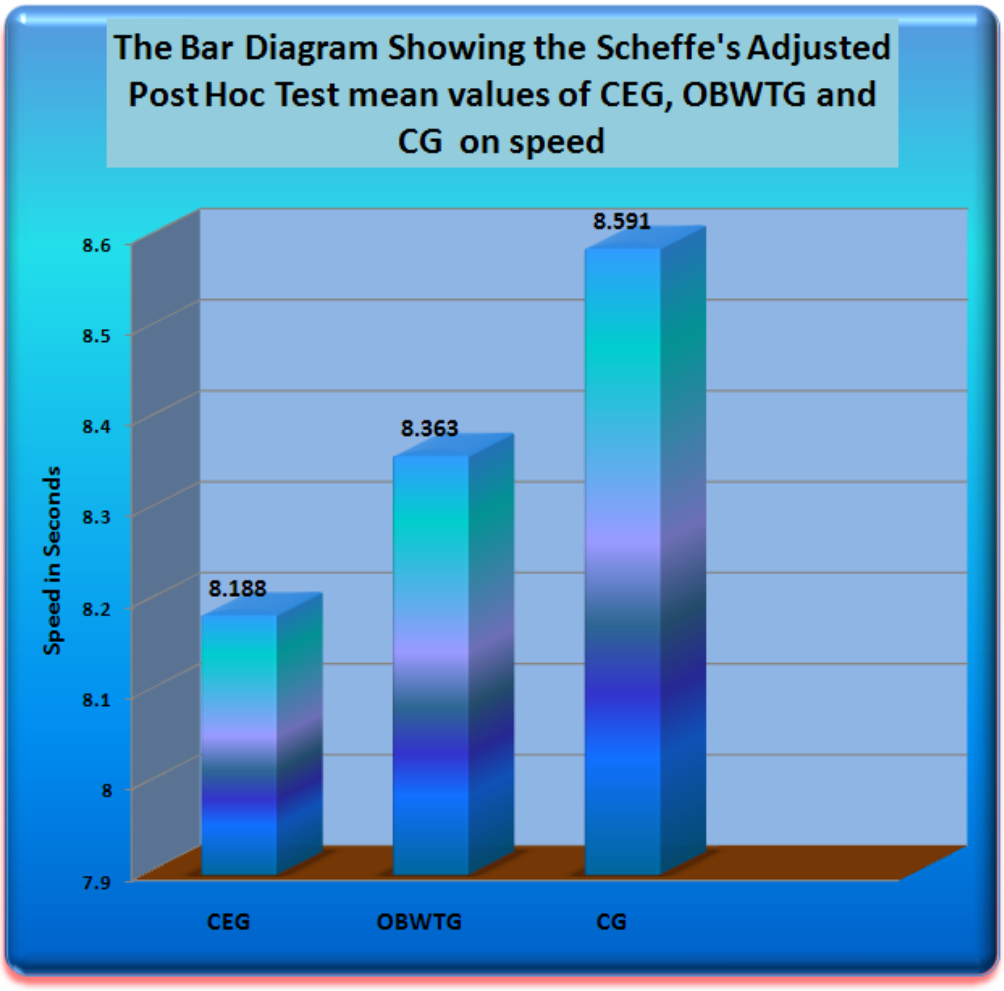

Figure I. Means of ceg, obetg and cg of industrial training students on speed

Table 8
Scheffee's adjusted post- hoc means of ceg, obetg and cg of industrial training students on agility

CEG	OBWTG	CG	M.D	C.I
12.462	12.726	-	0.264	0.195
12.462	-	12.9	0.485	0.195
12.462	-	12.9	0.485	0.195

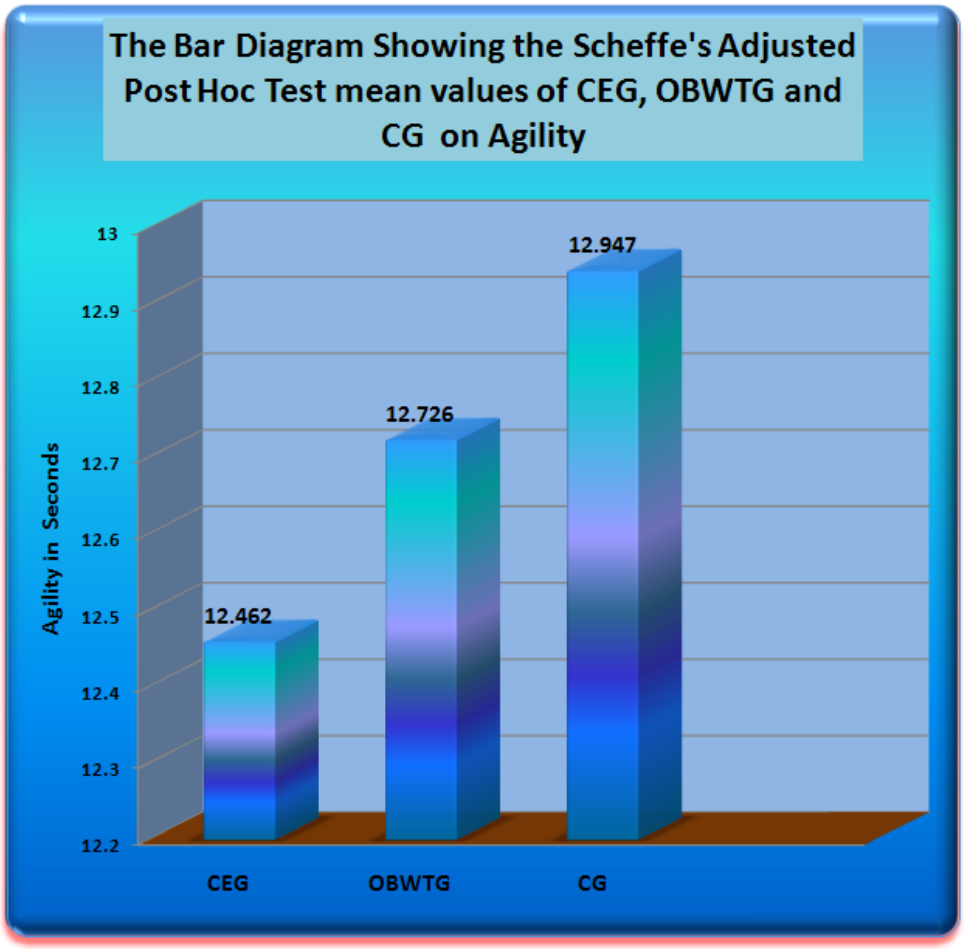

Figure II. Means of ceg, obetg and cg of industrial training students on agility

Result of the Study

1. The result of the study shows that calisthenics exercise training significantly improved the speed and agility of industrial training students.
2. The result of the study shows that own body resistance training significantly improved the speed and explosive power of young children.
3. The result of the study shows that calisthenics exercise training significantly improved better than the own body resistance training and control group on speed and agility of industrial training Students.
4. The result of the study shows that the own body resistance training significantly improved better than the control group on speed and explosive power of young children.

Conclusion

It is concluded that the calisthenics exercise training significantly improved the speed and agility of industrial training students. The own body resistance training significantly improved the speed and agility of young children. The calisthenics exercise training significantly improved better than the own body resistance training and control group on speed and agility of industrial training students. The own body resistance training significantly improved better than the control group on speed and agility of young children.

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