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## Effects of weight training on physical fitness components of CBSE School Students

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### Abstract

The main purpose of the study is to find the effects of weight training on physical fitness components of CBSE school students. For the purpose of the study 30 students were selected randomly from School of Scholars, Amravati. Age of the subjects ranged from 13 to 15 years. All the subjects were having four day weight training program. A specific duration of seven weeks. The following physical fitness components were selected for the study- pull ups, sit ups, 50 yard dash, shuttle run, standing broad jump and 600 yard run/walk. A pre and post physical fitness test were conducted before and after the training programme. For analyzing the data, mean, Standard deviation and t-test were computed by means of Microsoft Excel 2007. The standard authorise beginners weight training programme was adopted for this paper. In the beginners training programme beginners need to run slow and concentrate on the basic exercises and avoid over training at any cost. If you are underweight then just run 3-4 days a week and if you are overweight then add cardios 2-3 time a week after exercise. The data collected on 30 subjects before and after Seven week training program of weight training on physical fitness variables were analyzed by using the 't' test. The result of the effect of seven weeks weight training program had shows improved performance with regard to pull-ups, sit-ups and standing broad jumps components, which is significant.

**Keywords:** Weight Training, Physical Fitness and CBSE School.

### 1. Introduction

Fitness is the ability to live a full and balanced life. The totally fit person has a healthy and happy outlook on life. Fitness is the young man's absolute necessity. It breeds self-reliance and keeps man mentally alert. Physical fitness is essential for human beings to adjust well with his environment as his mind and body are in complete harmony. Clarke and Clarke (1989) found that physical fitness is not a static factor and it varies from individual to individual and in the same person from time to time depending on factors.

Physical fitness is the organic vagueness or the proper functioning of body systems so that individual can perform the daily routine tasks efficiently. It is the ability to perform daily activity, with energy left over for enjoying leisure-time activities and meeting emergency demands if any. It is the ability to endorse, to bear up, and to withstand stress to carry on in circumstances where an unfit person could not continue. Physical fitness indicates how much accurately a work is done by an individual and even after the workout how much of energy is stored in him/her to perform other needed activities in a well skilled manner. It is clear and obvious that after workout every individual gets fatigue, this applies to every physical fit person but one of the major difference in unfit and fit individual is the storage of energy for emergency and other normal activities even after fatigue, other major aspect in physical fitness is rest is necessary but the rest period must be of appropriate duration. Physical fitness is the continuation of daily routine work without Undue fatigue.

The below given Fatigue-Recovery cycle represents an average human beings physical fitness approaches, In this cycle this is shown clearly that every individual get-tired or feel fatigue must not lead to stoppage of further task for any physical fit person. Storage of energy must be present to perform other needed activities or leisure time activities, availability of appropriate energy must still be there to meet any emergency demands. The energy expenditure medium of an average individual is his/her main workout with other daily needed activities plus the emergency requirements (energy expenditure on emergency is situational and very rate) which definitely produce tiredness (Fatigue). After Fatigue proper rest is highly

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required and quick and total recovery from tiredness is again the indication of Physical fitness. A fit person also requires rest and the time needed for the rest determines the fitness level. If we take example of two individuals, they may require different time period of rest after performing same workout. Total recovery recharges individual to get ready for performing tasks again.

Figure showing the Fatigue and Recovery maintenance in order to obtain proper fitness level; A fit person is one who perform his daily routine and main task efficiently and After fatigue proper rest and recovery is required.

Physical Fitness gives us better look. Pleasant feel and productive performance. Fitness is an individual quality that differs from individual to individual to individual. Physical fitness involves the performance of our body systems like circulatory system, Muscular system etc. but the intellectual abilities, alertness in physical fitness (Nathial, 2008).

**Training**

Day	Components	Type	Sets and Repetition
1 & 4	Chest	Bench press	3X8
		Inclined Bench press	2X8
		Parallel bar dips	2X capacity Reps.
	Shoulders	Front Press	2X8
		Side raises or bend over lateral raises or front raises	2X8
	Triceps	Triceps Barbell extensions	2X8
		Pulley push down or French press or kick back or triceps dips	1-2X8
	Abs	Sit-ups or leg raises	2X20 slow
2 & 5	Legs	Calf raises	2X maximum reps
		Squats	3X8
		Leg Curls	1X8
	Back	Chinning	2X maximum reps
		Lats pull down	2X8
		Ground pulley or T-bar rows or barbell rows or dumbbell rows	2X8
		Biceps	Barbell Curls
		Bumble Curls or preacher curls or concentrate curls or hammer curls	1-2X8
		Traps	Shrugs
Cardios-20-30 minutes if one is over weight			
3, 6 & 7	Rest not even abs or running etc.		

**2.2 Statistical Analysis**

**2.2.1 Findings**

The data collected on 30 subjects before and after Seven week training program of weight training on physical fitness

**2. Material and methods**

For the purpose of the study 30 students were selected randomly from School of Scholars, Amravati. Age of the subjects ranged from 13 to 15 years. All the subjects were having four day weight training program. A specific weight training programme was conducted for the duration of seven weeks. The following physical fitness components were selected for the study- pull ups, sit ups, 50 yard dash, shuttle run, standing broad jump and 600 yard run/walk. A pre and post physical fitness test were conducted before and after the training programme. For analyzing the data, mean, Standard deviation and t-test were computed by means of Microsoft Excel 2007.

**2.1 Weight training programme for the CBSE Students**

The standard authorise beginners weight training programme was adopted for this paper. In the beginners training programme beginners need to run slow and concentrate on the basic exercises and avoid over training at any cost. If you are underweight then just run 3-4 days a week and if you are overweight then add cardios 2-3 time a week after exercise.

variables were analyzed by using the ‘t’ test. Therefore the separate tables and graphs have been presented for each variable as follows.

**Table 1:** Significance difference of mean of pull-ups between pre and post test

Variables	Test	Mean	SD	SE	MD	Ot	df	Tt
Pull-Ups	Pre	10.7	1.601	0.603	3.233	5.364*	58	2.00
	Post	13.933	2.888					

Significance at 0.05 level.

Table-1 indicates that the obtained ‘t’ value of (5.364) between pre and post of CBSE school students in pull-ups was found to be significant at 0.05 level of confidence as we obtained value

of (2.00) with 58 degree of freedom. Graphical representation of above table is made in figure No. 1.

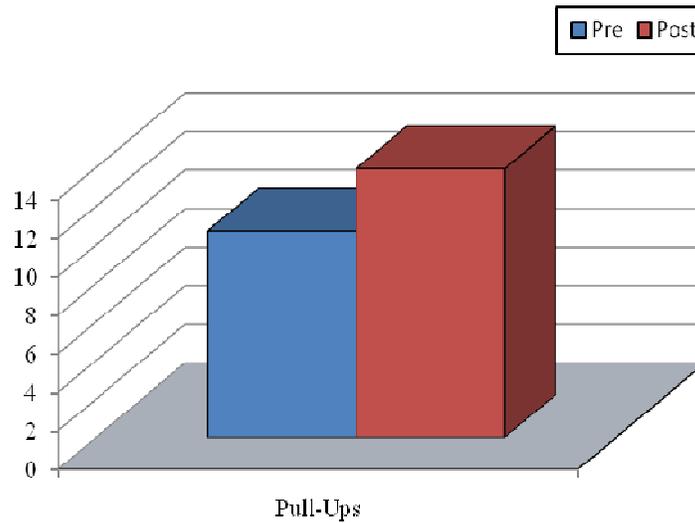


Figure No. 1: Mean value of Pre and Post of Pull ups.

Table 2: Significance difference of mean of sit-ups between pre and post test

Variables	Test	Mean	SD	SE	MD	Ot	df	Tt
Sit-Ups	Pre	34.167	7.948	2.031	10.767	5.302*	58	2.00
	Post	44.933	7.781					
	Post	2.718	0.415					

Significance at 0.05 level.

Table 2 indicates that the obtained 't' value of (5.302) between pre and post of CBSE school students in sit-ups was found to be significant at 0.05 level of confidence as we obtained value

of (2.00) with 58 degree of freedom. Graphical representation of above table is made in figure No. 2.

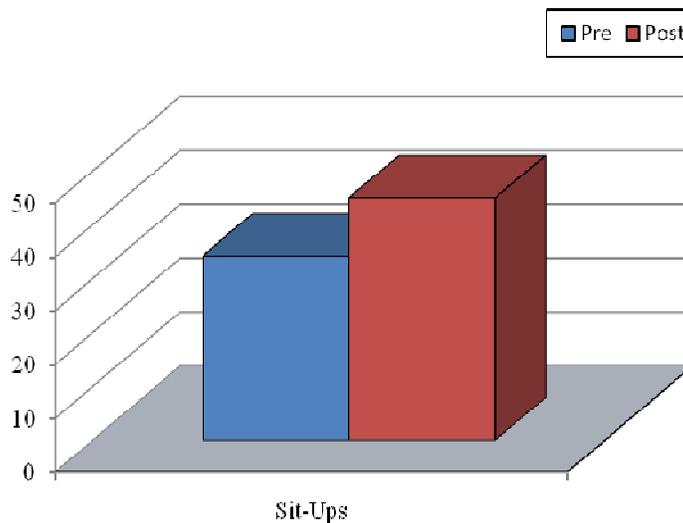


Figure No. 2: Mean value of Pre and Post of Sit ups.

Table 3 Significance difference of mean of shuttle run between pre and post test

Variables	Test	Mean	SD	SE	MD	Ot	df	Tt
Shuttle Run	Pre	11.528	11.449	0.342	0.079	0.231	58	2.00
	Post	1.12	1.501					

Significance at 0.05 level.

Table 3 indicates that the obtained 't' value of (0.231) between pre and post of CBSE school students in shuttle run was found to be insignificant at 0.05 level of confidence as we obtained

value of (2.00) with 58 degree of freedom. Graphical representation of above table is made in figure No. 3.

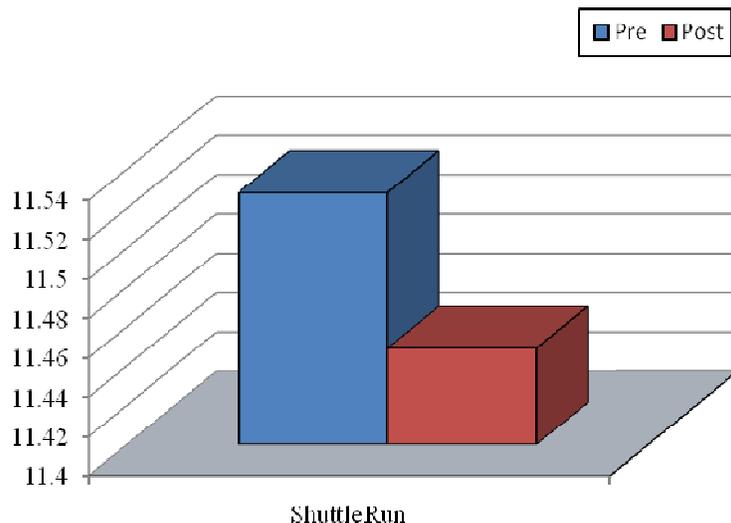


Figure No. 3: Mean value of Pre and Post of shuttle run.

Table 4: Significance difference of mean of 50 yard dash between pre and post test

Variables	Test	Mean	SD	SE	MD	Ot	df	Tt
50 Yard Dash	Pre	8.639	0.59	0.158	0.066	0.416	58	2.00
	Post	8.573	0.633					

Significance at 0.05 level.

Table 4 indicates that the obtained 't' value of (0.416) between pre and post of CBSE school students in 50 yard dash was found to be insignificant at 0.05 level of confidence as we

obtained value of (2.00) with 58 degree of freedom. Graphical representation of above table is made in figure No. 4.

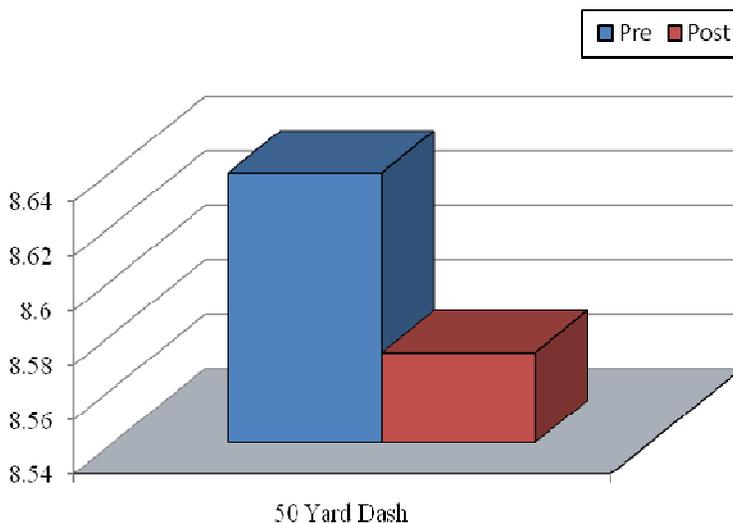


Figure No. 4: Mean value of Pre and Post of 50 yard dash.

Table-5: Significance difference of mean of standing broad jump between pre and post test

Variables	Test	Mean	SD	SE	MD	Ot	df	Tt
Standing Broad Jump	Pre	198.167	17.217	5.868	16.400	2.795*	58	2.00
	Post	214.567	27.139					

Significance at 0.05 level.

Table 5 indicates that the obtained 't' value of (2.795) between pre and post of CBSE school students in standing broad jump was found to be significant at 0.05 level of confidence as we

obtained value of (2.00) with 58 degree of freedom. Graphical representation of above table is made in figure No. 5.

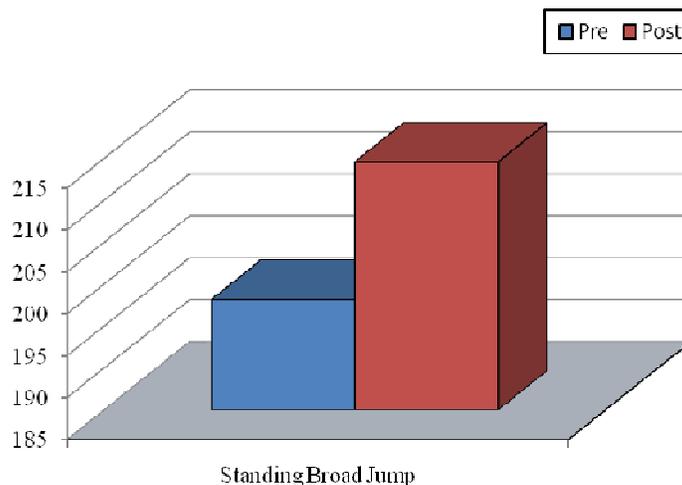


Figure No. 5: Mean value of Pre and Post of Sanding broad jump.

Table 6: Significance difference of mean of 600 yard run/walk between pre and post test

Variables	Test	Mean	SD	SE	MD	Ot	df	Tt
600 Yard Run/Walk	Pre	2.731	0.453	0.112	0.013	0.119	58	2.00
	Post	2.718	0.415					

Significance at 0.05 level.

Table 6 indicates that the obtained 't' value of (2.795) between pre and post of CBSE school students in 600 yard run/walk was found to be insignificant at 0.05 level of confidence as we

obtained value of (2.00) with 58 degree of freedom. Graphical representation of above table is made in figure No. 6.

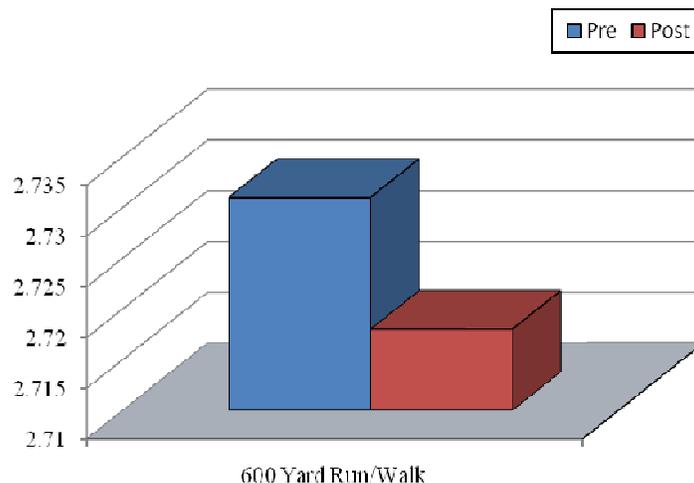


Figure No. 6: Mean value of Pre and Post of 600 yardrun/walk.

**3. Conclusion**

It is concluded that the effect of seven weeks weight training program had shows improved performance with regard to pull-ups, sit-ups and standing broad jumps components, which is significant.

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