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## EFFECT OF CIRCUIT TRAINING ON SPEED, AGILITY AND ENDURANCE OF PHYSICAL EDUCATION MALE STUDENTS OF ANNAMALAI UNIVERSITY

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### **ABSTRACT**

*Training is teaching, or developing in one's self or other, any skill and knowledge that related to specific use full competencies. Training has specific goal of improving once capability ,capacity, productivity and performance. The purpose of the study was to find out the effect of circuit training on speed, agility and endurance of Physical education male students. For the purpose the study forty male students were selected as subject form the department of physical education and sports science Annamalai University. The age of the students which serve as subject was 18 - 25 years which confirmed from university record. The subjects were divided into equal groups Group A- Experimental (N =20) and group as Control Group (N=20). All the students were informed about the aim and methodology of the study. The experimental group was given special training in Six week training Program. The control group was not given any training rather than their daily work routines. The data was collected by administering the AAHPERD youth physical fitness tests and the collected data was analyzed with the help of statistical procedure in which Standard Deviation, Mean and T ratio were employed. The level of significance was set at 0.05 level. The result oof the study showed that the training program had significant improvement.*

**KEY WORDS:** Circuit Training, Speed, Agility, Endurance and Male students.

**INTRODUCTION**

The word “training” is not a new word; people have been using it since archaic period. Training is a process of preparing an individual for any event or activity. Usually in sports, the term sports training denotes the scene of preparing sports person for the highest level of performance. But now a day sports training is not just a term but it is very important subject that affects each and every individual who takes up physical activity and sports either for health and fitness or for competition at different levels. It is the physical, technical, intellectual, psychological and moral preparation of an athlete or a player by means of physical exercises.

Sports’ training is the basic form of preparation of sports person. It is a process of athletic improvement, which is conducted on the basis of scientific principles through which systematic development of mental and physical efficiency, capacity and motivation enables athletes to produce outstanding and record breaking athletic performances.

**CIRCUIT TRAINING**

Circuit training method was developed by R.E. Morgan and G.T. Adamson in 1953 at the University of Leeds, England. This type of conditioning involves almost all the training factors. Circuit training can be designed to develop strength, power, speed, agility, flexibility and endurance.

Circuit training is a formal type of training in which an athlete goes through a series of selected exercises or activities that are performed in sequence or in a circuit . Circuits can be set up inside gymnasiums, exercise rooms, or outside on courts and fields. There are usually six to ten stations in a circuit. The athlete performs a specific exercise at

each station and then goes to the next station. The idea is to progress through the circuit as rapidly as possible, attempting to improve either by decreasing the total time it takes to complete the circuit or by increasing the amount of work done at each station, or both. The stations are distributed throughout the area earmarked to circuit training.

Circuit training is an excellent way to simultaneously improve mobility and build strength and stamina. The circuit training format utilizes a group of 6 to 10 strength exercises that are completed one after another. Each exercise is performed for a specified number of repetitions or for a given time period before moving on to the next exercise.

**MATERIALS AND METHODS**

The purpose of the present study was to investigate the effect of selected circuit training on agility, speed, and endurance among male physical education students of Annamalai University. To full fill the aim forty male students of the university were selected which serves a subjects. The forty male students was divided in two equal groups named as experimental group which is in number twenty and other group is named as control group which is also in number twenty. The simple random sampling was applied to selected the subjects for the study. The age of the students was between 18 to 25 years.

**RESULT AND DISCUSSION**

The result of the study presented through table and figures, which are given below. Mean score, standard deviation and t- value of Experimental and Control group students with respect to 50 yard dash, Semi Agility and 12 minute Run-Walk variables.

**Table 1 Shows statistical comparison of Agility between pre-test and post-test of Experimental group is as under:**

Group	Mean	SD	T-ratio
Pre-test	12.78	1.20	0.51
Post-test	12.59	1.22	

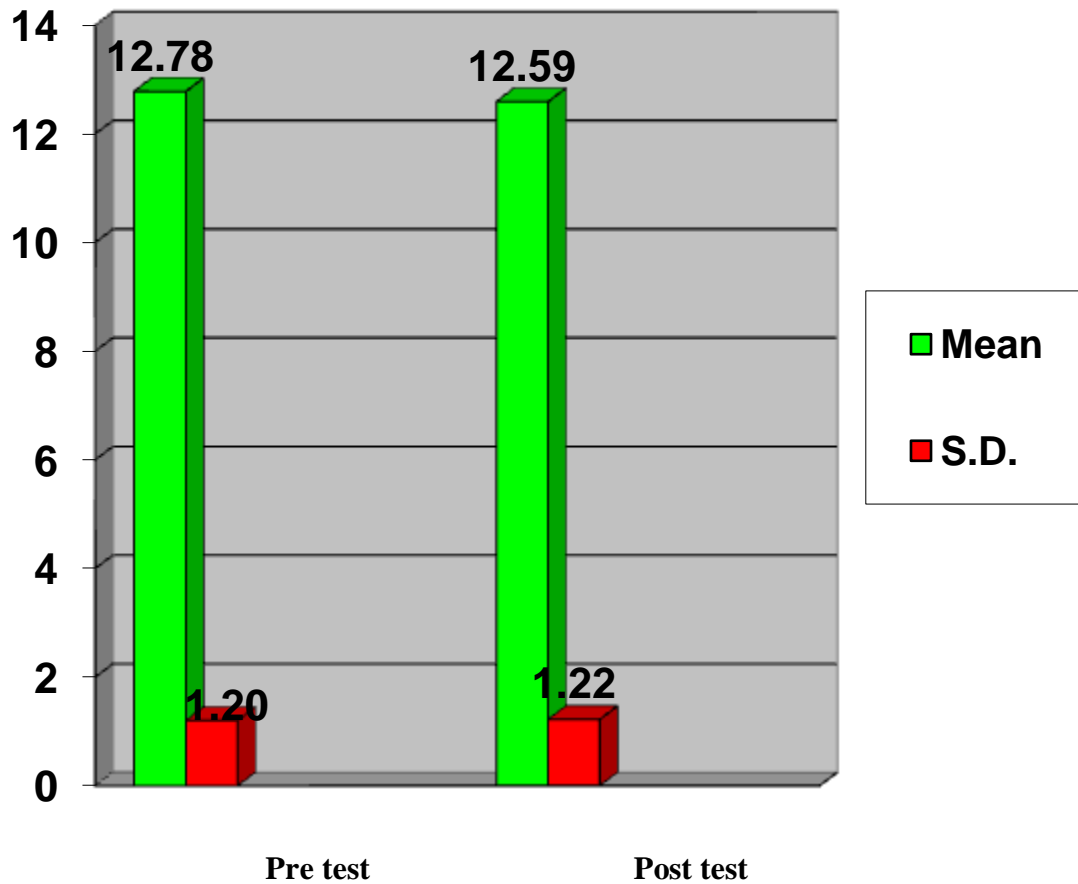
N = 20

From the above table it is observed that the mean of Experimental group students in pre-test and post-test is 12.78 and 12.59 respectively. After applying “t”

test it is found that the t-ratio is 0.51 which was not significant at the 0.05 level of significance.

**Figure 1**

Figure showing the Mean difference of Experimental group students in pre and post test on Agility



**Table 2**

Shows statistical comparison of Agility between pre-test and post-test of Control group is as under:

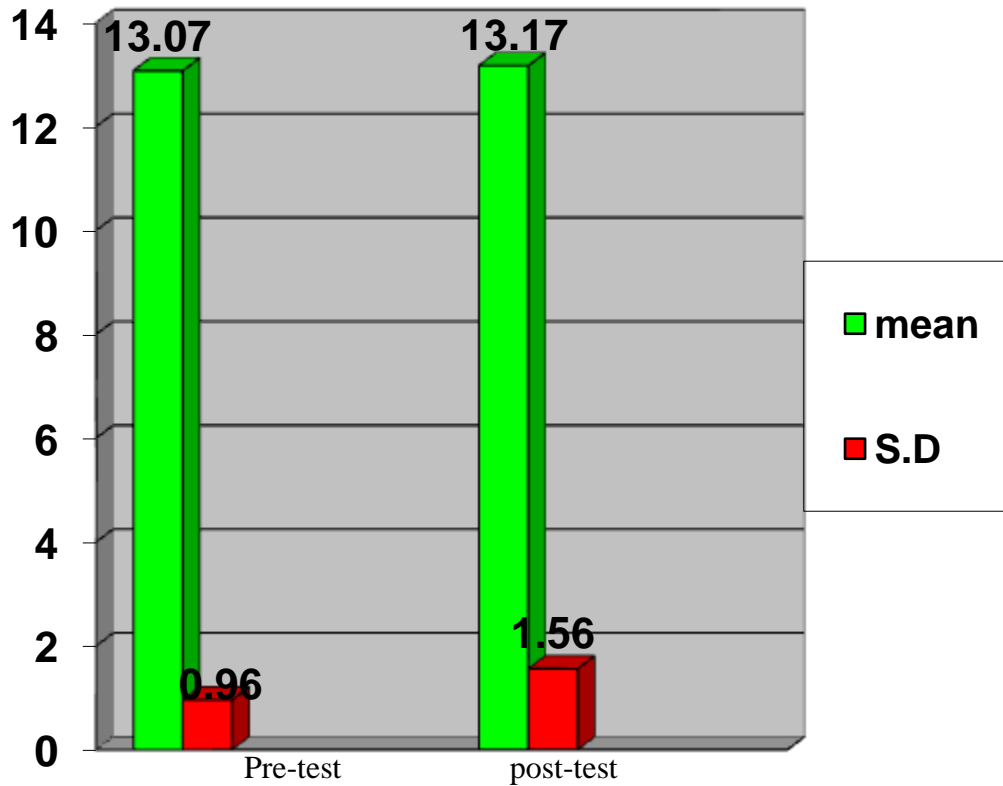
Group	Mean	SD	T-ratio
Pre-test	13.07	0.96	0.25
Post-test	13.17	1.56	

N = 20

From the above table it is observed that the mean of Control group students in pre-test and post-test is 13.07 and 13.17 respectively. After applying “t” test it

is found that the t-ratio is 0.25 which was not significant at the 0.05 level of significance..

**Figure 2**  
**Figure showing the Mean difference of Control group students in pre and post test on agility**



**Table 3**  
**Shows statistical comparison of Speed between pre-test and post-test of Experimental group is as under:**

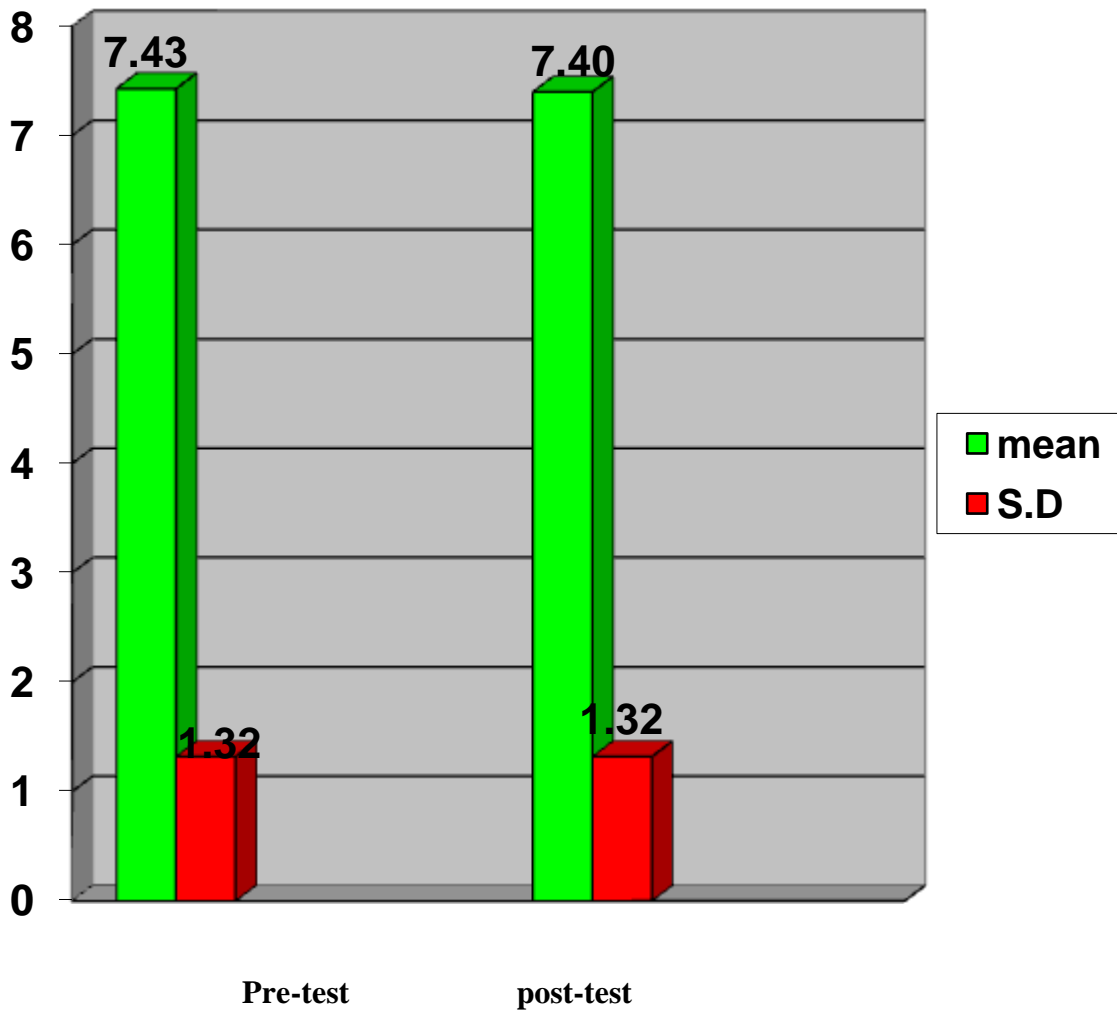
Group	Mean	SD	T-ratio
Pre-test	7.43	1.32	0.07
Post-test	7.40	1.32	

N = 20

From the above table it is observed that the mean of Experimental group students in pre-test and post-test is 7.43 and 7.40 respectively. After applying “t” test

it is found that the t-ratio is 0.07 which was not significant at the 0.05 level of significance.

**Figure 3**  
Figure showing the Mean difference of Experimental group students in pre and post test on Speed



**Table 4**  
Shows statistical comparison of Speed between pre-test and post-test of Control group is as under:

Group	Mean	SD	T-ratio
Pre-test	8.45	2.32	2
Post-test	8.31	2.15	

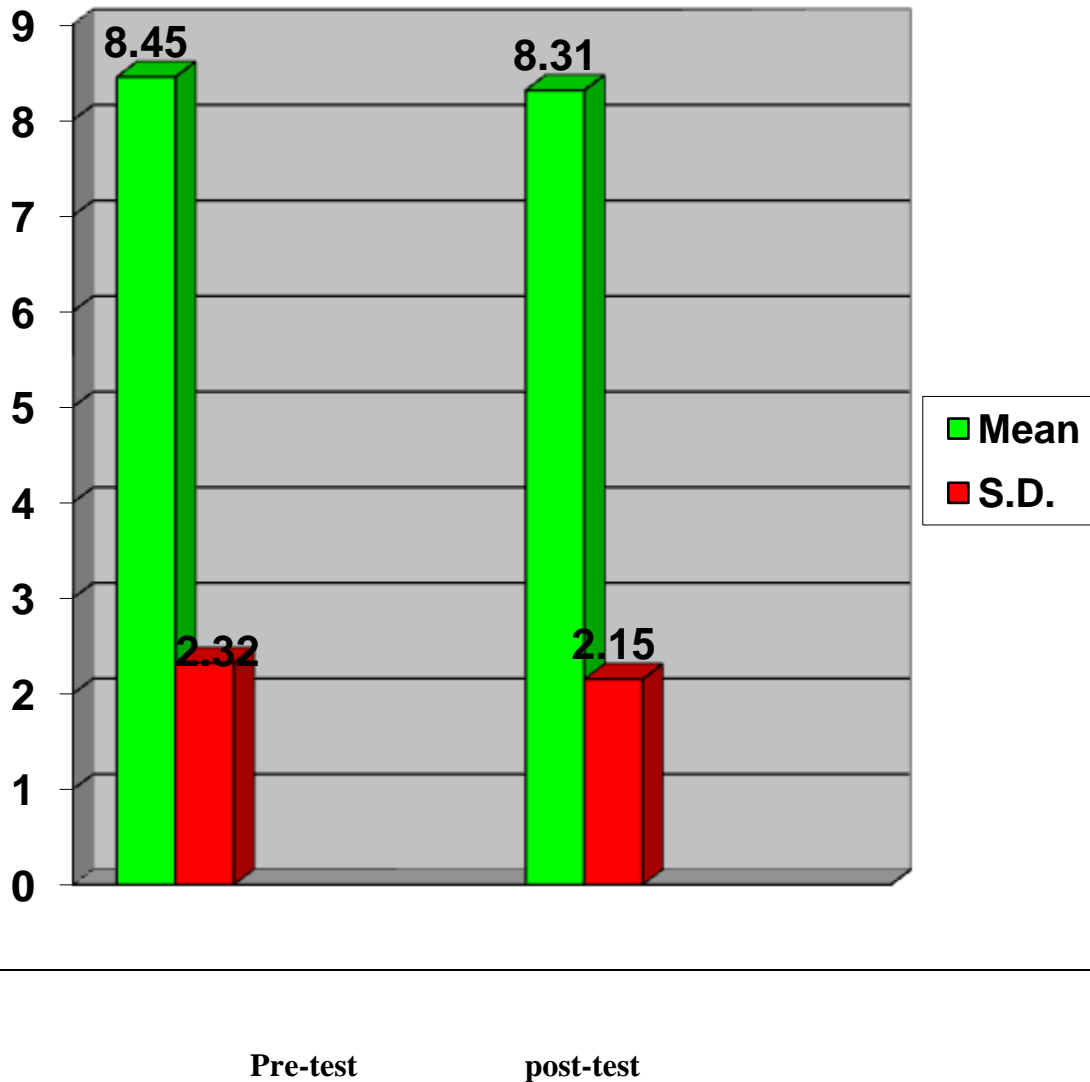
N = 20

From the above table it is observed that the mean of Control group students in pre-test and post-test is 8.45 and 8.31 respectively. After applying

“t” test it is found that the t-ratio is 2 which was not significant at the 0.05 level of significance.

**Figure 4**

Figure showing the Mean difference of Control group students in pre and post test on Speed



**Table 5**  
Shows statistical comparison of endurance between pre-test and post-test of Experimental group is as under

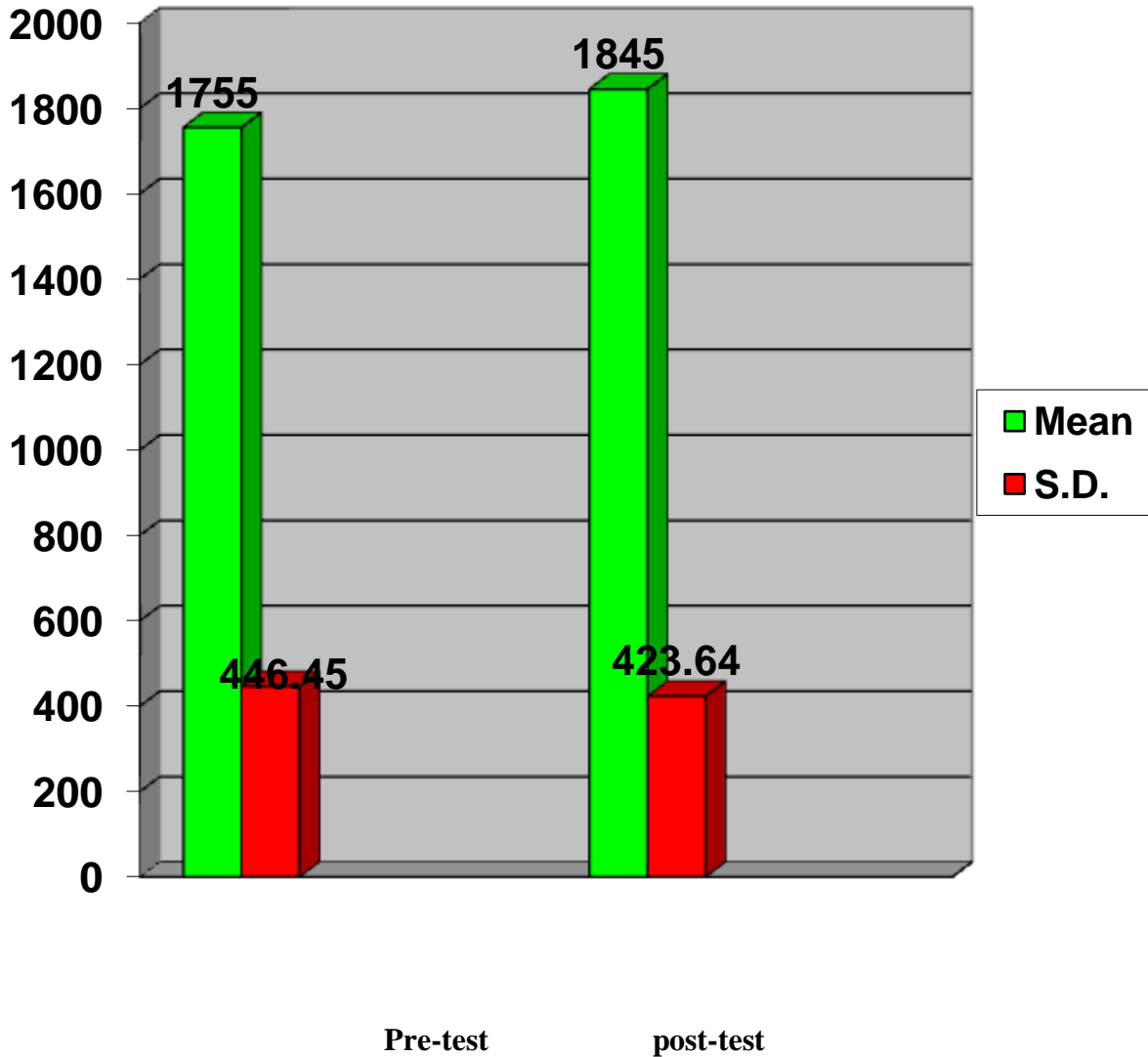
Group	Mean	SD	T-ratio
Pre-test	1755	446.45	0.65
Post-test	1845	423.64	

N = 20

From the above table it is observed that the mean of Experimental group students in pre-test and post-test is 1755 and 1845 respectively. After applying “t” test

it is found that the t-ratio is 0.65 which was not significant at the 0.05 level of significance.

**Figure 5**  
Figure showing the Mean difference of Experimental group students in pre and post test on Endurance



**Table 6**  
Shows statistical comparison of Endurance between pre-test and post-test of Control group is as under:

Group	Mean	SD	T-ratio
Pre-test	1845	471.03	2.18
Post-test	1530	438.29	

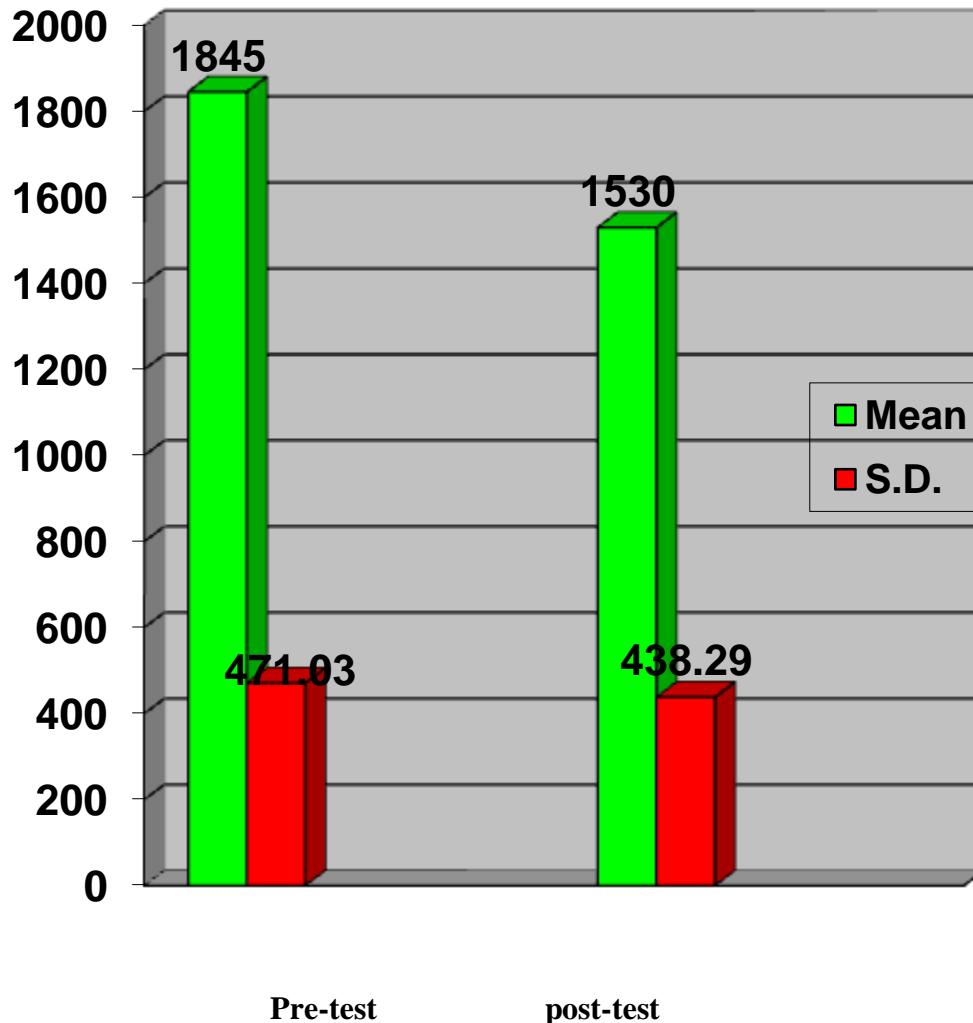
N = 20



From the above table it is observed that the mean of Control group students in pre-test and post-test is 1845 and 1530 respectively. After applying “t” test it

is found that the t-ratio is 2.18 which was not significant at the 0.05 level of significance.

**Figure 6**  
**Figure showing the Mean difference of Control group students in pre and post test on Endurance**



**CONCLUSIONS**

Mean, S.D and t- ratio were utilized to compare the selected physical variable between control and experimental groups among physical education students. On the bases of statistical result the following conclusions were drawn within the limitation of the study.

1. There was no significant effect of speed between control group and experimental group among physical education students.
2. There was no significant effect of Agility between control group and experimental group among physical education students.

There was significant effect of Endurance between control group and experimental group among physical education students.

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