

# Influence of Specific Training Programme on Physiological Component of School Level Weight Lifting Players

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**Abstract:** *The purpose of this study was to find out the effect of specific training programme on selected Physiological variables of Indian high school level Weight Lifting players. Randomly 30 male students were selected from Jalna Schools from Maharashtra, India. Were selected as subjects and their ages were ranged from 13 to 15 years. They were divided into two equal groups and each group consisted of 15 subjects. Group-I was performed specific training programme, and group-II was acted as a control group. The selected criterion variables are Resting pulse rate and Breath hold time were selected and measured by manual pulse test and breathing capacity for this study. The data was analyzed by the use of paired 't' test. The obtained 't' ratio was tested for significance at 0.05 level of confidence. The analysis of the data revealed that there was a significant improvement on Resting pulse rate and Breath hold time by the application of specific training programme.*

**Keywords:** Resting pulse rates, Breath hold time and Specific training

## 1. Introduction

Weightlifting is a sport in which athletes compete in lifting a barbell loaded with weight plates from the ground to overhead, with each athlete vying to successfully lift the heaviest weights. Athletes compete in two specific ways of lifting the barbell overhead: these are the snatch and the clean and jerk. The snatch is a wide-grip lift, in which the weighted barbell is lifted overhead in one motion. The clean and jerk is a combination lift, in which the weight is first taken from the ground to the front of the shoulders (the clean), and then from the shoulders to overhead (the jerk). The clean and press, wherein a clean was followed by an overhead press, was formerly also a competition lift, but was discontinued due to difficulties in judging proper form. Each weightlifter gets three attempts at both the snatch and the clean and jerk, with the snatch attempts being done first. An athlete's score is the combined total of the highest successfully-lifted weight in kilograms for each lift. Athletes compete in various weight classes, which are different for each sex and have changed over time. Lifters who fail to successfully complete at least one snatch and at least one clean and jerk fail to total, and receive an "incomplete" entry for the competition.

### Physiological Development

Like any other physical activity, during the participation and physical exertion in Weight Lifting the endorphins are released. Endorphins tone up the entire health system. Even today no laboratory with so much of scientific advancement can manufacture endorphins, where as they can be developed only through game exertion. The best way for exertion is participation in Weight Lifting game activities. They give recreation as well as relaxation and at the same

time also help Physiological systems enrichment and thus mental efficiency. Ajmir Singh et al 2008).

### Specific Training

Specificity is the principle of training that states that sports training should be relevant and appropriate to the sports for which the individual is training in order to produce a training effect. The specificity principle simply states that training must go from highly general training to highly specific training. The principle of specificity also implies that to become better at a particular exercise or skill, you must perform that exercise or skill. To be a good cyclist, you must cycle the point to take away is that a runner should train by running and a swimmer should train by swimming. (Blair, 1993).

## 2. Methodology

For this study, thirty (N=30) male Weight Lifting players from Jalna Schools from Maharashtra, India. Were selected as subjects and their ages were ranged from 13 to 15 years. They were divided into two equal groups and each group consisted of 15 subjects. Experimental Group was given 8 weeks (Duration – 8 weeks, Session – 3 day/week, Duration of one session – One hour) of specific training programme and control group was not participated any specific training. Experimental Group-I (specific Training) were given to the experimental group. The subjects were tested in the selected criterion variables Resting pulse rate and Breath hold time were selected and measured manual pulse test in minute and breathing capacity in seconds for this study. Before and after the training period the data were collected. The collected data was treated by using paired t-test. The level of confidence was fixed at 0.05 level.

### 3. Results of the Study

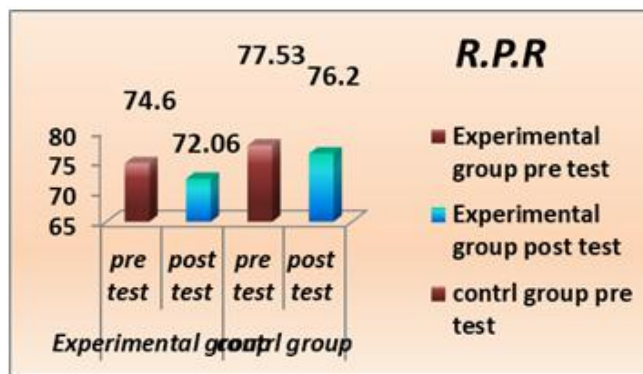
**Table I:** Table showing the Mean Difference, Standard Deviation and ‘t’ Value of Experimental and Control Group in Resting pulse rate

Group	Mean	Md	Std. deviation	Std. error of the mean	‘t’	Table value
Experimental pre-test	74.60	2.54	7.17	1.85	5.20	2.14
Experimental post test	72.06		5.76	1.48		
Control pre test	77.53	1.33	6.75	1.74	1.97	2.14
Control post test	76.20		6.50	1.67		

\*significance at 0.05 level of confidence

From the table to find out difference between experimental and control group of resting pulse rate. Difference in two groups ‘t’ ratio was employed and the level of confidence was set at 0.05. Experimental group pre test and post test means were 74.60 and 72.06 respectively. In control group pre and post tests mean values were 77.53 and 76.20

respectively. In experimental group the obtained ‘t’ ratio 5.20 was greater than the table value of 2.14 so it was found to be significant. In control group the obtained ‘t’ ratio 1.97 was lesser than the table value of 2.14 so it was found to be insignificant.



**Figure I:** Bar Diagram showing the pre and post test mean value of Experimental group and control group of Resting pulse rate

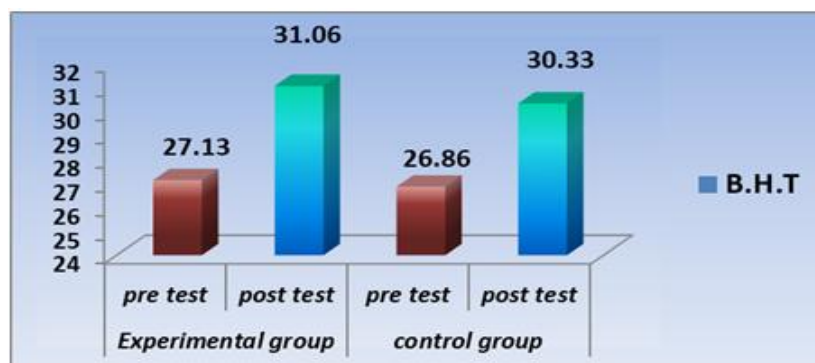
**Table II:** Table showing the Mean Difference, Standard Deviation and ‘t’ Value of Experimental and Control Group in Breath hold time

Group	Mean	Md	Std. deviation	Std. error of the mean	‘t’	Table value
Experimental pre-test	27.13	3.93	3.29	0.85	8.50	2.14
Experimental post test	31.06		3.21	0.83		
Control pre test	26.86	3.47	4.17	1.07	1.69	2.14
Control post test	30.33		7.48	1.93		

\*significance at 0.05 level of confidence

From the table to find out difference between experimental and control group of breath hold time. Difference in two groups ‘t’ ratio was employed and the level of confidence was set at 0.05. Experimental group pre test and post test means were 27.13 and 31.06 respectively. In control group pre and post tests mean values were 26.86 and 30.33

respectively. In experimental group the obtained ‘t’ ratio 8.50 was greater than the table value of 2.14 so it was found to be significant. In control group the obtained ‘t’ ratio 1.69 was lesser than the table value of 2.14 so it was found to be insignificant.



**Figure II:** Bar Diagram showing the pre and post test mean value of Experimental group and Control group of Breath hold time.

#### 4. Conclusion

- 1) It was concluded that there was a significant improvement on resting pulse rate by the application of specific training programme.
- 2) It was concluded that there was a significant improvement on breath hold time by the application of specific training programme.

#### References

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