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## **Effects Of Weight Training On Speed, Agility And Strength Among Government Polytechnic College Students In Yavatmal City**

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### **Abstract:**

*The study was conducted the effects of weight training on speed, agility and strength among government polytechnic college students in yavatmal city the present study was conducted on 30 male from government polytechnic college students in yavatmal city by before training and after training method aged between 22 to 28 years, The data was checked for accuracy and completeness and studies variables, t-test, was considered statically technique throughout the study. the level of significant was set-up at 0.005 levels. From the above table it is observed that the mean of before training and after training of students is 7.35 and 7.51 respectively. After applying "t" test it is found that the t-ratio is 0.5 which was not significant. it is observed that the mean before training and after training of students is 4.91 and 5.13 respectively. After applying "t" test it is found that the t-ratio is 0.25 which was not significant. it is observed that the mean before training and after training of students is 1.86 and 2.05 respectively. After applying "t" test it is found that the t-ratio is 1.8 which was significant at the 0.05 level of significance. So the hypothesis was accepted. Conclusion: 1. there was not statistically significant difference of speed after weight training in Gov. Polytechnic students of Gov. Polytechnic campus. 2. There was not statistically significant difference of agility after weight training in Gov. Polytechnic students of Gov. Polytechnic campus. 3. There was statistically significant difference of strength after weight training in Gov. Polytechnic students of Gov. Polytechnic campus.*

**Key Word:** Effect, Weight Training, Physical Fitness.

### **Introduction**

Training is the acquisition of knowledge, skills, and competencies as a result of the teaching of vocational or practical skills and knowledge that relate to Specific useful competencies. Training has specific goals of improving one's capability, capacity, and performance. It forms the core of apprenticeships and provides the backbone of content at institutes of technology (also known as technical colleges or polytechnics). In addition to the basic training required for a trade, occupation or profession, observers of the labor-market recognize as of 2008 the need to continue training beyond initial qualifications: to maintain, upgrade and update skills throughout working life.

People within many professions and occupations may refer to this sort of People within many professions and occupations may refer to this sort of training as professional development.

Physical training concentrates on mechanistic goals: training-programs in this area develop specific skills or muscles, often with a view of peaking at particular time. Some physical training programs focus on rising overall physical fitness.

### **Material & Methods**

**Purpose:** "The main purpose of the study was to determine the "Effect of weight training on speed, agility and strength among gov. Polytechnic students"

**Significance:** 1.The study may be helpful to physical education teachers and coaches. 2. The findings of this study would assist in designing suitable training program to achieve good physical fitness.

**Hypothesis:** 1. There would be significant effect of weight training on speed, agility and strength among Gov. Polytechnic students.

**Delimitation:** 1. The study was delimited to male Gov. Polytechnic of Yavatmal district. 2. Only 30 male Gov. Polytechnic, of Yavatmal district was selected. 3. The age group of the subjects was ranged between 22-28 years.

**Mythology:** The purpose of this study was to investigate the Effects of weight training on selected physical fitness components among Gov. Polytechnic Students. To fulfill these aim 30 Gov. Polytechnic students were selected as subjects of the study.

**Selection of Variables:** The following variables were selected as present study. Physical variables: a) speed. b) Agility. c) Strength.

**Administration Of The Test:** 1. 50 yard dash: Purpose: To find out the speed of the subject. 1. Shuttle runs Purpose: To measure speed and agility. Standing Broad Jump Purpose: To measure power (Explosive strength)

**Tools:** For the present study, modified tools were used for data collection stopwatch, measuring tape.

**Statistical Analysis:**

To analysis of data mean, standard deviation and t-ratio were used to significant value of 0.05 levels. Formula for mean, S.D and t-ratio are as follows:

$$M = \Sigma X / N$$

$$S.D = \sqrt{\Sigma X^2 / N}$$

$$T\text{-ratio} = M1 - M2 / \text{critical ratio}$$

**Analysis of Data And Result Of The Study**

The result of the present study through tables and figures, which are given below. Mean score, standard deviation and t- value of students with respect to speed, agility and strength is given below.

**Table no 1 : shows the statistical comparison of 50 yard dash with respect to Speed; Shows statistical comparison in shuttle run with Respect to agility and Shows Statistical comparison of S.B.J with respect to strength:**

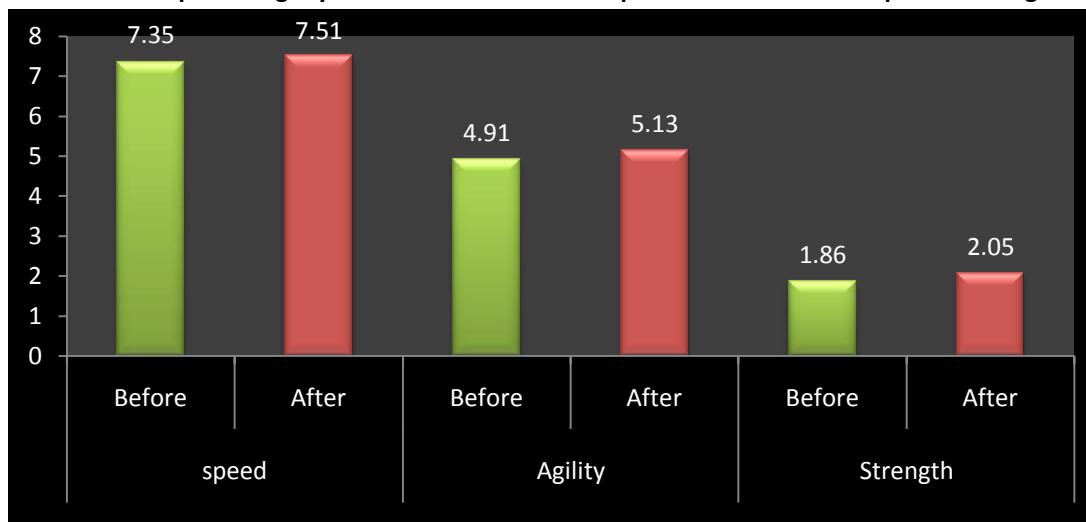
Variable	Group	Means	S.D.	T ratio
Speed	Before	7.35	0.92	0.5NS
	After	7.51	0.86	
Agility	Before	4.91	0.57	0.25NS
	After	5.13	0.61	
Strength	Before	1.86	0.22	1.8*
	After	2.05	0.35	

Not significant:

From the above table it is observed that the mean of before training and after training of students is 7.35 and 7.51 respectively. After applying “t” test it is found that the t-ratio is 0.5 which was not significant at the 0.05 level of Signify. So the hypothesis was ejected. From the above table it is observed that the mean before training and after training of students is 4.91 and 5.13 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. So the hypothesis was rejected.

From the above table it is observed that the mean before training and after training of students is 1.86 and 2.05 respectively. After applying “t” test it is found that the t-ratio is 1.8 which was significant at the 0.05 level of significance. So the hypothesis was accepted.

**Figure 1 Figure no 1 showing the Mean difference in 50 yard dash, Shows statistical comparison in shuttle run with Respect to agility and Shows statistical comparison of S.B.J with respect to strength.**



**Discussion Of Hypothesis:**

1. The Hypothesis was that there would be significant difference of Speed before and after weight training programme in Gov. Polytechnic students. shows that the t-ratio is 0.5 Which was not significant at 0.05 Significance level? Thus the Hypothesis was rejected.
2. The Hypothesis was that there would be significant difference of agility before and after weight training programme in Gov. Polytechnic students shows that the t-ratio is 0.25 Which was not significant at 0.05 Significance level? Thus the Hypothesis was rejected.
3. The Hypothesis was that there would be significant difference of strength before and after weight training programme in Gov. Polytechnic students. In no 3, a show that the t-ratio is 1.8 Which was significant at 0.05 Significance level, Thus the Hypothesis was accepted.

**Summary:**

**Physical fitness :**Physical fitness has been defined as a set of attributes or characteristics that people have or achieve that relates to the ability to perform physical activity. The above definition from Physical Activity and **Health:** A Report of the Surgeon General is the most common currently used definition of physical fitness. It was originally used by Caspersen and has been used extensively. An alternative definition by Howley and Frank that provides additional descriptive information is: Physical fitness is a state of well-being with low risk of premature health problems and energy to participate in a variety of physical activities. While either is a good definition, most experts agree that physical fitness is both multidimensional and hierarchical.

Strength the quality or state of being strong; ability to do or to be capacity for exertion or endurance, whether physical, intellectual, or moral; force; vigor; power; as, strength of body or of the arm; strength of mind, of memory, or of judgment. Power to resist force; solidity or toughness; the quality of bodies by which they endure the application of force without breaking or yielding; in this sense opposed to fragility; as, the strength of a bone, of a beam, of a wall, a rope, and the like.

## Speed:

The Italian physicist Galileo Galilei is credited with being the first to measure speed by considering the distance covered and the time it takes. Galileo defined speed as the distance covered per unit of time.

**Agility** : The quality of being agile the power of moving the limbs quickly and easily nimbleness activity quickness of motion as strength and agility of body.

**Conclusion:** The following conclusions drawn from the study.

1. There was not statistically significant difference of speed after weight training in Gov. Polytechnic students of Gov. Polytechnic campus.
2. There was not statistically significant difference of agility after weight training in Gov. Polytechnic students of Gov. Polytechnic campus.
3. There was statistically significant difference of strength after weight training in Gov. Polytechnic students of Gov. Polytechnic campus.

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- iii. In the first picture, the knees are too close and get twisted. For appropriate muscular development and safety the knee should be in line with the foot. Rippetoe, Mark; Lon Kilgore (2005). "Knees". Starting Strength. The Aasgard Company. pp. 46–49. ISBN 0-9768054-0-5.
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