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To determine the effect of weight training on players of different sports

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Abstract

The purpose of the study was to determine the effect of Weight Training on students of GCOPE Ganderbal.

Methodology: 60 male students of Govt. college of phy.edu. Ganderbal, J&K, who participated in Inter – college/National level tournaments in various sports were short listed for this study. Total students were divided into two groups. Group A experimental group, who receives thirty six weight training sessions for 8 weeks and another Group B is control group.

Result: To Assess Pre-versus Post training performance of 30 student through statistical tool (t test) and selected experimental test were utilized. The researcher has tried to test the null hypothesis which was based on t test at 0.05 level of confidence. Overall it can be conclude that the performance of Weight training was highly influenced to respondents and pre-test and post-test also suggested improving result of training in Group A.

Conclusion: It was found that Weight training increases Performance of players.

Keywords: Determine, weight, training, players, sports

Introduction

Weight Training is Specific in that gain in strength and muscular endurance will improve skill performance to the greatest extent. With the training program we consist of excessive that include the muscle groups and that simulate the movement patterns used during the skill.

Weight training is a common type of strength training for developing the strength and size of skeletal muscle. It uses the weight force of gravity (in the form of weight and bars, dumbbells or weight slides) to oppose the force generated by muscle through concentric and eccentric contracting. Weight Training uses a variety of specialized equipment to target specific muscle groups and types of movement.

Sports where strength training is central are bodybuilding, weightlifting, power lifting, strongman, highland game, shotput, discus throw and javelin throw. Many other sports use strength training as a part of their training regimen, notably, rowing, lacrosse, basketball and hockey. Strength training for other sports and physical activity is becoming increasingly popular.

Weight training became increasingly popular in the 1970's following the release of the bodybuilding movie, Pumping Iron and the subsequent popularity of Arnold Schwarzenegger. Bompal, T. (1993) [3] Periodization of strength.

Methodology

For this study 60 students from University of Kashmir (MPED) who also participated in different tournaments in different sports were selected for this study. 60 subjects are divided into two groups. Group A experimental group who receive Weight training for 8 weeks and Group B (control group) without doing any Weight training or other exercises. To collect the data following tests were administered before and after training. Physical Performance test:-

- Test-1: Zig-Zag-Run. To measure the agility, mobility and flexibility of the subject.
- Test-2: Vertical Jump. To measure explosive strength of the legs.
- Test-3: 800 meters. To measure the maximum speed.

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Analysis of data

Hypothesis testing through statistical tools

To assess pre- versus post training performance of 30 students, through statistical tool (t test) and selected samples were utilized. The researcher has tried to test the null hypothesis which was based on t-test. The test was also based for pre-test and post-test. In order to test, the impact of training on the pre-test and post-test. The raw score of pre-and post test are collected and converted into t-test as:-

Total Score. (Experimental group Group A) Physical Performance

Table 1: T-value between pre-test and post-test of weigh training group (group-a) in total score

Item	Mean	SD	df	T Value
Pre-test and Post-test of Weight training group(Group A)	4.933	0.91	29	29.502

Table value (5% level of significanc, df 29)=2.04

Table 1 indicates the Mean, Standard Deviation and T value of Pre Test and Post Test of weight Training Group (Group - A) in total score. The mean is 4.9333 and SD is 0.9159. It indicates the uniformity of data. The Calculated value of T is 29.502, which is higher than table value at 5% level of significant at 2.456. So null hypothesis “There is no significant difference between the mean score of pre-test and post-test of weight training group of the total score of physical performance” is rejected and alternative hypothesis is accepted. It indicated that post weight training has high influence among the samples

Zig Zag run

Table 2: T-value between pre-test and post-test of weight training group (group-a) in zig zag run

Item	Mean	SD	Df	t value
Pre-test and Post-test of Weight training group experimental group A	0.76	0.38	29	9.18

Table value (5% level of significance, df 29)=2.045

It is clear from Table 2 that the Mean, Standard Deviation and T value of Pre Test and Post Test of weight Training Group (Group - A) in Zig Zag Run. The mean is 0.6667 and SD is 0.3977. It indicates the uniformity of data. The Calculated value of T is 9.182. which is higher than table value at 5% level of significant is 2.456. So null hypothesis “There is no significant difference between the mean score of pre-test and post-test of weight training group of the score of physical performance in terms of Zig Zag Run” is rejected and alternative hypothesis is accepted. It indicated that post weight training has high influence in Zig Zag Run.

Vertical jump

Table 3: T- Value between pre-test and post-test of weight training group (group-a) in vertical jump

Item	Mean	SD	df	T value
Pre-test and Post-test of Weight training group(Group A)	1.06	0.19	19	28.32

Table value (5% level of significance and df) = 2.045

Table 3 indicates the Mean. Standard Deviation and T value of Pre Test and Post Test of weight Training Group (Group - A) in Vertical Jump. The mean is 1.0067 and SD is 0.1946. It

indicates the uniformity of data. The Calculated value of T is 28.328. which is higher than table value at 5% level of significant is 2.456. So null hypothesis "There is no significant difference between the mean score of pre-test and post-test of weight training group of the score of physical performance in terms of Vertical jump" is rejected and alternative hypothesis is accepted. It indicated that post weight training has high influence among the samples.

800 Meter Run

Table 4: T-Value between pre-test and post-test of weight training group (group-a) in 800 mts run

Item	Mean	SD	df	T value
Pre-test and Post-test of Weight training group(GroupA)	0.400	0.70	29	3.090

Table value (5% level of significance and df) = 2.045

It is clear from Table 4 that the Mean, Standard Deviation and T value of Pre Test and Post Test of weight Training Group (Group - A) in 800 Mts. Run. The mean is 0.40 and SD is 0.7091. It indicates the uniformity of data. The Calculated value of T is 3.090, which is higher than table value at 5% level of significant is 2.456. So null hypothesis "There is no significant difference between the mean score of pre-test and post-test of weight training group of the score of physical performance in terms of 800 MTS Run" is rejected. It indicated that post weight training has high influence in 800 Mts. Run. Looking to the performance for Group-A according to all the parameters which were tested shows rejection of null hypothesis in all cases. This represents that the results were not as per our expectations, that there is no significant relation between pre-test and post-test training. It can be concluded that the training has positive impact.

Control group (30 subjects)

Physical performance

Table 5: Table showing the t-value between pre-test and posttest of control group (group-b) in total score

Item	Mean	SD	df	T value
Pre test and Post test of control group in total score.	1.41	0.677	29	11.39

Table value (5% level of significance and df) = 2.045

Table 5 indicates the Mean. Standard Deviation and T value of Pre Test and Post Test of Control Group (Group - B) in total score. The mean is 1.41 and SD is 0.6778. The Calculated value of T is 11.392, which is higher than table value at 5% level of significant is 2.456. So null hypothesis "There is no significant difference between the mean score of pre-test and post-test of control group of the total score of physical performance" is rejected. It indicated that training has positive influence among the samples.

Zig Zag Run

Table- 6: Table showing the t-value between pre-test and post-test of control group (group-c) in Zig Zag run

Items	Mean	SD	Df	T value
Pre test and post test of control group B	0.733	0.34	29	11.01

Table value (5% level of significance and df) = 2.045

It is clear from Table 6 that the Mean. Standard Deviation and T value of Pre Test and Post Test of Control Group (Group -

B) in Zig Zag Run. The mean is 0.7033 and SD is 0.3499. It reflects the uniformity of data. The Calculated value of T is 11.011, which is higher than table value at 5% level of significant is 2.456. Here, null hypothesis "There is no significant difference between the mean score of pre-test and post-test of control group of the score of physical performance in terms of ZigZag Run" is rejected and alternative hypothesis is accepted. It indicated that control group training has positive influence in Zig Zag Run.

Vertical Jump

Table 7: Table showing the t- value between pre-test and post-test of control group (group-b) in vertical jump

Items	Mean	SD	Df	T value
Pre test and Post test of Control Group B	6.00	5.63	29	5.83

Table value (5% level of significance and df) -- 2.045

Table 7 indicates the Mean, Standard Deviation and T value of Pre Test and Post Test of Control Group (Group - B) in Vertical Jump. The mean is 6.00 and SD is 5.63. It indicates the high fluctuation in data. The Calculated value of T is 5.835, which is higher than table value at 5% level of significant is 2.456. The null hypothesis "There is no significant difference between the mean score of pre-test and post-test of control group of the score of physical performance in terms of Vertical Jump" is rejected. It indicated that post weight training has significant influence among the samples.

800 Meter Run

Table 8: Table showing the t-value between pre-test and post test of control group (group-b) in 800 mts run

Items	Mean	SD	Df	T value
Pre test and Post Test of Control Group B	8.00	0.47	29	0.093

Table value (5% level of significance and df) = 2.045

It is clear from Table 8 that the Mean, Standard Deviation and T value of Pre Test and Post Test of Control Group (Group - B) in 800 Mts. Run. The mean is 8.00 and SD is 0.4701. It shows the uniformity of data. The Calculated value of T is 0.093, which is lower than table value at 5% level of significant is 2.456. Here null hypothesis "There is no significant difference between the mean score of pre-test and post-test of control group of the score of physical performance in terms of 800 MTS Run" is accepted. It indicates training does not influence the control group.

Comparison between experimental and control group

Table 9: Table showing the comparison of t-value between pre-test of weight training group (group-a) and control group in total score

Item	Mean	SD	df	T value
Pre test and Post test of Control Group B in Total Score	0.45	1.4	29	1.75

Table value (5% level of significance and df) - 2.045

Table No.9 represents detail comparison of t-value between pre-test of weight training group i.e. Group-A and control group i.e. Group-B in the total score. It also provides statistical data like mean and standard deviation. The mean of both the groups is 0.4567. While the variation in the data of the subjects founded by standard deviation which is worked out to 1.4277. The calculated value of t is 1.752. which below the table value of 2.045 It makes clear that the basic assumption for the study

is accepted for these groups.

The degree of freedom is 29 looking to the number of observations. The level of significant considered for the study is 5% the normal level for acceptance of hypothesis for a researcher. The comparison of t-value among various subject groups before any kind of training make us clear that the basic assumption of the researcher the null hypothesis have accepted by all the groups. In other word we can say that before training the results of all the groups were homogenous.

Table 10: Table showing the comparison of t- value between post-test of weight training group (group-a) and control group (group-b) in total score

Item	Mean	SD	Df	T value
Post test of weight training Group A and Control Group B in Total Score.	3.99	1.32	19	16.42

Table value (5% level of significance and df) = 2.045

Table provides the comparison of t value between post test of weight training group (Group-A) and control group (Group-B) in total score. This table also provides mean and standard deviation. Based on the basic assumption the researcher has prepared a line for the analysis i.e. null hypothesis "There is no significant difference between the post-test of Weight training group (Group-A) and Control group (Group-B) of the total score of physical performance". The mean of both the groups is 3.9900 which gives the average performance of the group members during the study's period. Standard deviation provides variability of the data under the study is 1.3291. It can be observed that the variability of data of the same group before the training programme was found high and after the training programme stability of the data is increased

Results and Discussion

According to this research project on students of GCOPE Ganderbal. It is found that, the students who have taken Weight training during their physical activity, their performance level was increased more than all other groups of this experiment. (Aoki, H.R. Tsukahara, and K. Yabe. 1989)^[1]. Looking to the overall performance of the group members under the observed study, i.e. Table No. 1 to 10 makes clear that the performance before any training was found same. Performance after weight training has increased as compared to the previous results (Pre-test results) and control Group B result Champaign. Bosco C., and P.V Komi. (1979)^[4]. Bosco. C and P.V Komi (1982)^[5].

Conclusion

The study found that Weight training increased the performance of student of different sports trained at GCOPE Ganderbal.

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