CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

SUMMARY

In today's competitive world, sports movement has become an important factor of tie between people and have developed globally, where games and sports have become more competitive than ever. Everyone talks of highest achievement at international level. In this respect the role of sport as an activity of human ability cannot be expressed in words. Naturally, with this approach sports activity becomes similar to intensive creative work. In certain period it occupies a dominated position in the general daily life and demands special organisation in accordance with requirements of highest sporting performance such as daily training, maximum load, progressive intensity and participation in competitions under controlled conditions.

Hence the sports training which is basic form of an athlete's training in preparing him scientifically and systematically for his sporting perfection, plays markedly significant role in achieving highest sports performance.

The purpose of the study was to compare the effects of various schedules (frequency) in weight training and circuit training on strength characteristics of
secondary school students. The subjects were 100 male students studying in 11th and 12th classes of Bhupindra Khalsa Senior Secondary School, Moga, District Faridkot. These subjects were divided at random into four groups of twenty five each.

Group CT-2 and Group WT-2 participated in circuit training having two days a week schedule; and weight training having two days a week training schedule respectively for a duration of ten weeks. Where as Group WT-4 and Group CT-4 participated in circuit training having four fold a week training schedule and weight training having four fold a week training schedule respectively for a duration of ten weeks. The pre and post training data were recorded on vertical jump test, cricket ball throw test and standing broad jump test as measured of power, on pull-up, sit-up and push-up tests, as a measure of strength endurance test and on bench press, leg press and standing press tests, as measure of maximum strength.

The significance of mean difference between the pre-test and post test scores in each of the measurements were analyzed by paired 't' test. To find out the differential effects of varied schedules in weight training and circuit training on strength characteristics among the four groups, analysis covariance (ANCOVA) was applied. Scheffe's post-hoc test was also applied in case 'F' values were found significant. For testing the Hypothesis .05 level
of significance was chosen. The analysis of paired 't' test for the pre-test and post-test means of power resulted in significant 't' ratios for vertical jump (t value of 7.72, 10.49, 2.61 and 16.69 for groups CT-2, CT-4, WT-2 and group WT-4 respectively); for cricket ball throw (group WT-4, t=2.18) and also for standing broad jump (t value of 3.25, 4.51, 2.28 and 2.67 for groups CT-2, CT-4, WT-2 and group WT-4 respectively). Significant 't' ratios were also resulted on variable of strength endurance for Pull ups (t value of 3.25, 5.03 and 9.38 for groups CT-4, WT-2 and WT-4 respectively); for sit ups (t value of 2.25 and 3.72 for group CT-4, and group WT-4 respectively); and for push up (t value of 2.37, 2.67, 2.36 and 4.93 for groups CT-2, CT-4, WT-2 and group WT-4 respectively). Significant 't' ratio on the variable of maximum strength for groups WT-4. in bench press test, (t = 3.2); in leg press test (t=3.81) and in standing press test (t = 3.45) were found, whereas in other groups significant improvement was not observed.

The analysis of covariance when applied to find out the significance of difference among the adjusted final means of two circuit groups (CT-2 and CT-4) and two weight training groups (WT-2 and WT-4) resulted in significant F value at .05 level in vertical Jump (F=79.76), Cricket ball throw (F = 15.78), Pull-ups (F=34.64), set-up (F =9.10), Push ups (F=34.91), bench press(F=13.20) and standing Press (F=4.45)
The 'F' value for power as measured by standing broad jump and maximum strength as measured by leg press were not significant at .05 level.

As the analysis of covariance (ANCOVA) showed significant differences among the groups in variable of power (vertical jump and cricket ball throw), strength endurance (sit up, pull up and push up), and maximum strength (bench press and standing press), Scheffes post hoc test was applied to find which of the difference between means amongst the groups were statistically significant. Scheffes post hoc test indicated that mean gain by group WT-4 were significantly higher in power (vertical jump and cricket ball throw), in strength endurance (pull up, sit up and push up) and in maximum strength (Bench press and standing press) as compared to other groups. Further, the mean gains by group CT-4 was also higher in almost all variables than group CT-2 and group WT-2.

CONCLUSIONS

Within the limitation identified and on the basis of findings this study, the following conclusions were drawn:

1. Weight training having four days a week schedule was significantly more effective in improving the strength characteristics such as power, strength endurance and
maximum strength of the school going students.

2. Circuit training having four days a week schedule was also effective in improving strength characteristics in general and strength endurance in particular of secondary school students after ten week of training.

3. Four days a week training schedule in weight training was more effective in improving explosive strength, maximum strength and endurance of secondary school students than fewer frequency(schedules) training per week.

4. In improving maximum strength four days per week weight training program was more effective than four days per week circuit training program.

RECOMMENDATIONS

In the light of the conclusions arrived at, in this study, the following recommendations are made:

1. While planning physical training program in schools weight training and circuit training program having more training schedules (frequencies) may be recommended for desired improvement in secondary school boys with regard to strength characteristic such as power, strength endurance and maximum strength.

2. To improve maximum strength weight training with higher training schedule may be preferred over the circuit training.
3. If possible the training program may be planned having more frequent stress for a duration of ten weeks or more to achieve significant achievements.

4. Similar study may be conducted on elite athletes.

5. Similar study may be carried out on subjects of different ages and sex.