

**SUMMARY CONCLUSIONS &  
RECOMMENDATIONS**

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## CHAPTER V

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 SUMMARY

Researches indicate that proprioceptive training can improve athletes' strength, coordination, muscular balance, and muscle-reaction times, and studies have linked proprioceptive work with a reduced risk of injury during sporting activity. Leanderson J et.al. (1996) suggested future investigations to be likely to find that improved proprioception can also boost athletic performance. Neuromotor facilitation techniques emphasizing PNF and closed kinetic chain exercises form the mainstay in balance rehabilitation, reversing the joint instability resulting from the injury by regaining joint position sense and kinaesthetic acuity- the two most commonly attributed factors to be affected following injury (Garn SN, and Newton RA, 1988), and so does the ability to detect the actual position of the ankle joint in space (Glencross D. and Thornton E. (1981) It remains to be established whether the improved awareness attributed to proprioceptive training translates to enhanced functional capacity or balance ability in uninjured individuals. Additionally it would be prudent to identify the variable most influenced by this form of training among the athletic performance indicators. Hence a need was identified to study the influence of neuromotor facilitatory training on determinants of athletic performance, such as, static

balance, dynamic balance, agility, and speed among healthy (uninjured) young adults.

The purpose of the study was to find out the effects of neuromotor facilitatory training on determinants of athletic performance in young adults. To achieve the purpose of the study, the investigator selected 90 active young adults between age group of 18 to 25 years, who were studying in different colleges in Mangalore. For experimental purposes, pre test post test random group design was followed in this research. Subjects were randomly selected based on inclusion and exclusion criteria were divided into three groups, namely, experimental group I, experimental group II and control group. Experimental group I underwent 8 weeks neuromotor facilitatory training, experimental group II underwent placebo training for eight weeks and the control group was kept strictly under control and not involved in any special activities. Prior to experimental treatment, all the subjects were measured of selected variables, namely, determinants of athletic performance, speed, agility, static balance (Static Unipedal Timed Balance for dominant and non-dominant leg) dynamic balance (Dynamic Unipedal Timed Balance for dominant and non-dominant leg). After the experimental treatment for a period of eight weeks the subjects were measured on the criterion variables, which formed the final scores. The difference between the initial and final means was considered as the effects of neuromotor facilitatory training on determinants of athletic performance. To test statistical significance of the differences,

ANCOVA was employed. In all cases 0.05 level was fixed to test the hypothesis of the study.

The results proved that neuromotor facilitatory training significantly improved determinants of athletic performance such as, speed, agility, static balance (dominant leg and non dominant leg), dynamic balance (dominant leg and non dominant leg) than placebo training group and control group.

## 5.2 CONCLUSIONS

Within the limitations and delimitations of the study, the following conclusions were drawn.

1. It was concluded that neuromotor facilitatory training group significantly improved determinant of athletic performance such as, speed, than placebo group and control group among young adults.
2. It was concluded that neuromotor facilitatory training group significantly improved determinant of athletic performance such as, agility, than placebo group and control group among young adults.
3. It was concluded that neuromotor facilitatory training group significantly improved determinant of athletic performance such as, static balance, than placebo group and control group among young adults.

4. It was concluded that neuromotor facilitatory training group significantly improved determinant of athletic performance such as, dynamic balance, than placebo group and control group among young adults.

### 5.3 RECOMMENDATIONS

The findings of this study proved that young men determinants of athletic performance variables, speed, agility, static balance (dominant leg and non dominant leg) and dynamic balance (dominant leg and non dominant leg) could be significantly improved through neuromotor facilitatory training, which is in agreement with the previous researches. In the light of the above findings, the following recommendations were made.

1. Efforts may be taken to include neuromotor facilitatory training in the physical education curriculum of the college men as it improves overall neuromotor fitness.
2. Efforts may be taken by coaches, sports scientists and educational authorities to include neuromotor facilitatory training in the training schedules of athlete preparation.
3. Advantages of neuromotor facilitatory training may be popularized among college men and women for their all round development of strength and fitness levels.

#### 5.4 SUGGESTIONS FOR FURTHER RESEARCH

During the course of the research, the researcher come across several ideas on the suggestions for further research in this direction as presented below.

1. A research comparing the effects of neuromotor facilitatory training and different other forms of training may be compared to pin point which of the training would be beneficial for selected variables.
2. A similar study may be conducted among college sportsmen to find out the effect of neuromotor facilitatory training on the determinants of athletic performance and skills of the games.
3. Since this study covered the college men only, a similar research may be undertaken among college women to find out the effect of neuromotor facilitatory training.
4. A research with larger samples and inclusion of similar other variables would further support the findings of this study.