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Effect of interval training and continuous running on selected biomotor abilities

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Abstract
The purpose of the study was to find out the effects of interval training and continuous running on bio motor abilities such as speed, muscular endurance and cardio respiratory endurance. To achieve this purpose of the study, forty five men students in the Department of Physical Education and Sports Sciences, Annamalai University, Annamalai Nagar, Tamil Nadu, India were selected as subjects at random. The selected subjects were divided into three equal groups of fifteen subjects each, such as interval training and continuous training, and control group. The group I underwent interval training programme, Group-II underwent to continuous training for three days per week for twelve weeks. And Group III acted as control group who did not participate any special training programmes apart from their regular physical education activities as per their curriculum. The following variable namely speed, muscular endurance and cardio respiratory endurance were selected as criterion variables and it was measured by using standard tests. All the subjects of three groups were tested on selected criterion variable at prior to and immediately after the training programme. The analysis of covariance was used to analyse the significant difference, if any between the groups. The level of significance to test the 'F' ratio obtained by the analysis of covariance was tested at. 05 level of confidence, which was considered as an appropriate. The results of the study revealed that there was a significant difference between interval training and continuous training group and control group on speed, muscular endurance and cardio respiratory endurance. And also it was found that there was a significant improvement on selected variables speed, muscular endurance and cardio respiratory endurance due to interval and continuous.

Keywords: Interval Training, Continuous Training, speed, Muscular Endurance and Cardio Respiratory Endurance

1. Introduction
In this modern world, competition is the key factor in each and every field, particularly in the field of sports where yesterday's records are topped and the same may be lower performance of tomorrow.

Training in sports is essentially on education process. The athlete is instructed and educated by the trainers the physical education teachers and coaches. Training depends upon the various aspects and is a positive quality closely related to exercise and good health habits. It is an important and valuable pulse in modern society. For the last few decades, research has been conducted to develop a better training method to improve motor fitness components.

Interval Training Work should be done with sufficient speed and 30 minutes duration so that the heart rates go up to 140 beats/minutes. After this there should be a recovery period and when the heart rate comes down to 90 – 100 beats per minute, the work should be started again. Continuous Running, for the purpose of this study continuous running is defined as running at constant paces without any recovery pause in between keeping the heart rate between 100 – 120 beats per minute for a given period of 20 minutes

2. Methodology
The purpose of the study was to find out the effects of interval training and continuous running on bio motor abilities such as speed, muscular endurance and cardio respiratory endurance. To achieve this purpose of the study, forty five men students in the Department of Physical Education and Sports Sciences, Annamalai University, Annamalai Nagar, Tamil Nadu, India were selected as subjects at random. The selected subjects were divided into three equal groups of fifteen subjects each, such as interval training and continuous training, and control group. The group I underwent interval training programme, Group-II underwent to continuous training for three days per week for twelve weeks. And Group III acted as control group who did not participate any special training programmes apart from their regular physical education activities as per their curriculum. The following variable namely speed, muscular endurance and cardio respiratory endurance were selected as criterion variables and it was measured by using standard tests. All the subjects of three groups were tested on selected criterion variable at prior to and immediately after the training programme. The analysis of covariance was used to analyse the significant difference, if any between the groups. The level of significance to test the 'F' ratio obtained by the analysis of covariance was tested at. 05 level of confidence, which was considered as an appropriate. The results of the study revealed that there was a significant difference between interval training and continuous training group and control group on speed, muscular endurance and cardio respiratory endurance. And also it was found that there was a significant improvement on selected variables speed, muscular endurance and cardio respiratory endurance due to interval and continuous.

3. Training Programme
3.1 Interval Training
Work should be done with sufficient speed and 30 minutes duration so that the heart rates go up to 140 beats/minutes. After this there should be a recovery period and when the heart rate comes down to 90 – 100 beats per minute, the work should be started again.

3.2 Continuous Running

For the purpose of this study continuous running is defined as running at constant paces without any recovery pause in between keeping the heart rate between 100 – 120 beats per minute for a given period of 20 minutes.

4. Results and Statistical Technique

The analysis of covariance was used to analyse the significant difference, if any between the groups. The level of significance to test the 'F' ratio obtained by the analysis of covariance was tested at. 05 level of confidence, which was considered as an appropriate.

5. Conclusions

- The following are the findings of the study:
- The speed was significantly improved after the interval training and continuous training when compared with the control group.
- There was a significant improvement after the interval training and continuous training on muscular endurance when compared with the control group.
- There was a significant improvement in cardio-respiratory endurance after the continuous running when compared with the interval training and control groups.

6. References

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