



A Study of Selective Training Program Effect on Long Distance Players

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Abstract

The present study of selective training program on long distance players in sangli district was conducted. Apply 16 weeks training program was made with use scientific and technical base of FITT principal. Sampling were chose random sampling method in that simple random sampling technique was used (N=60). Make two equivalents group one experimental and another was control. Conducted test on both groups before and after 16 weeks Program was conducted on only experimental group. 3 km Run Test Measuring athlete Performance, Bent-Knee Setups Measuring strength and endurance of abdominal muscles, 12 minutes run Test (Cooper Test) For Vo₂ max) Measuring Vo₂ max.

Pre-test mean of the **3 km run test** is 11.29 minutes and the SD is 0.9363 & Post test mean is 10.9 min. and SD is 0.6524 of experimental group. Pre-test mean is 11.4666 minutes and the SD is 0.6608 & Post test mean is 11.4766 min. and SD is 0.8604 of control group. Pre-test mean of the **Bent knee setups** is 37.4666 and the SD is 2.04651 & Post test mean is 55.1666 and SD is 2.8657 of experimental group. Pre-test mean is 37 and the SD is 1.5477 & Post test mean is 38 and SD is 1.6400 of control group. Pre-test mean of the **12 min run test for Vo₂ max** is 59.451 and the SD is 3.8509 & Post test mean is 70.059 and SD is 2.8040 of experimental group. Pre-test mean is 60.46 and the SD is 3.2699 & Post test mean is 60.49 min. and SD is 3.6278 of control group.

From this, it can be seen that the selected training program has a positive effect on the experimental group compare to control group performance, muscle endurance and VO₂ Max (cardiovascular endurance) of long distance runners.

Keyword: Endurance, Performance, Vo₂ max, FITT, Training Program

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Introduction

Long-distance runners from ancient Greece at panathenic amphora around 333 BC. It is believed that human movement appeared to have evolved from the capacity of operonepithes at least four to four and a half thousand years ago. They were the ancestors of human ancestors. The practice of running has been around since prehistoric times were running. Strength develops as a result of this running exercise, leading to changes in muscle tissue disease, central ligaments, sweat glands, ligaments, knee joints and hip muscles. This is the theory of the habits and movements that change during the running of an animal. This theory is evidence of the first proposed comparative body function, and the natural habit of animals to run, as well as the method of successful hunting by human running, show the same action. In recent times, it has been shown that hunting practice is one of them. (Career et al. 1984) Like Sears, this has been proven according to the scientific theory of career. Physical ability is the most important factor in physical education.

In outdoor sports, movement in various matters is directly related to the movement made by primitive man for his own survival. In the absence of effective weapons, primitive man was forced to develop the strength, agility, and agility of his legs and feet to protect himself from natural disasters and enemies. In developing these things, he practiced with his peers to save his life while hunting, to develop the skills he possessed, and this is believed to have developed the idea of outdoor competition.

Athletics competitions, cross-country competitions, marathon competitions are important in terms of individual sports competitions in the overall program of physical education. The popularity of this competition is increasing day by day. The present age is the technological age and new technologies are being developed for a short period of time. Every insect guide and sports coach is trying to develop their performance skills in this sport using this innovative technique. Attempts are also being made to develop long-distance sports. This type of sport requires physical strength, such as strength of heart and strength of muscle. Strength is the ability to work long hours in a state of exhaustion.

Institute of physical education, the specialty of the

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individual sports competition, Cross-country competition, and marathon competition is important. The popularity of this tournament is increasing day by day. The current era are developing a new period as a technical age and some time. Each worm guide and sports coach is trying to develop the capabilities of your game by using new techniques. Similarly, it is always trying to develop a game of long-distance running. For the sports in this sport, the heart intensity and muscle requires physical capacity. The intensity is the ability to act more than the muscles too

Endurance is an important factor in long-distance running. The concept of endurance has been elaborated by many scientists. Here are some definitions of endurance.

Endurance

"Endurance is the ability of a muscle or muscle group to contract or contract continuously for a maximum period of time"

"Endurance is the ability of a muscle or muscle group to work very intensely for a certain period of time".

Circulatory stamina also has the potential to depend on other factors. This ability is determined by the energetic process. Strength is the foundation of physiology because of the human body's ability to maintain energy production to a certain level. Due to the importance of vigor for health, training and competition, as well as their physiological determinants that are easily studied, this is a potential that has been studied extensively by physiologists. "Ability to resist or resist fatigue" "Ability to perform satisfactorily quality and fast sports movements even in the face of fatigue"

Training programs are created around the world using

different training methods when creating training programs for the sport of long-distance running. Therefore a selective training program has been used in this research.

Data Analysis:

Presentation of the material obtained through pre-test and answer tests conducted by both the experimental and controlled group of long-distance runners of the selected training program selected for the presented research is as follow,

3 Km run test

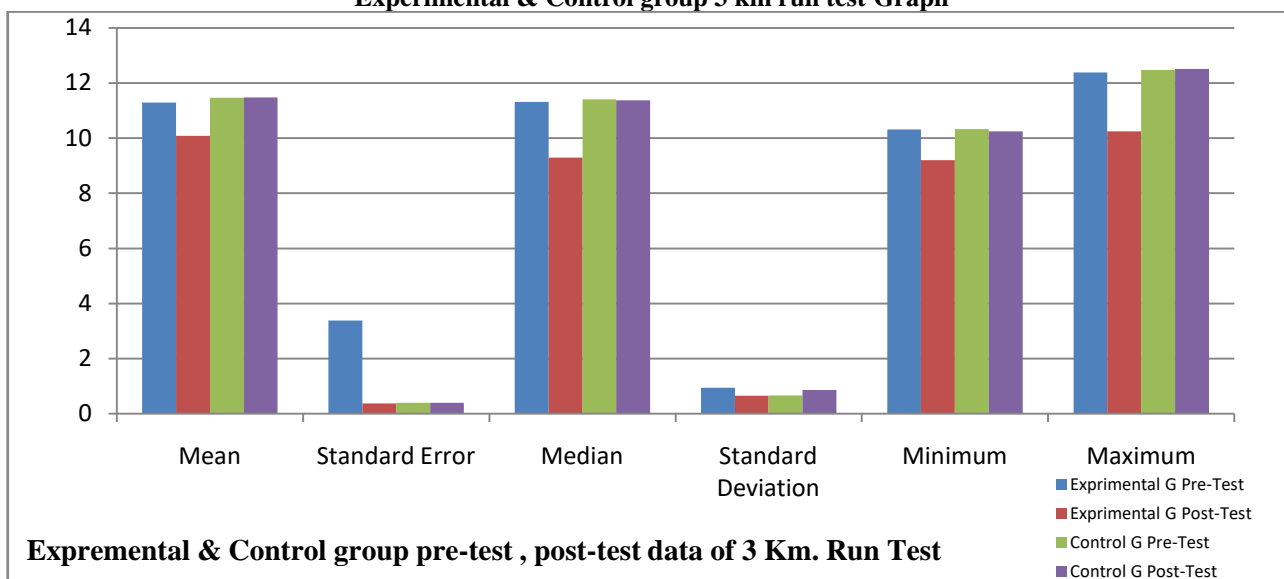
Experimental group : It was found that the average of the pre-test performance mean of the 3 km run test is 11.29 minutes and the standard deviation is 0. It is 9363. The minimum statistic in the pre-test of 3 km run performance mean is 10.09 minutes. The maximum statistic is 12.38 minutes. The total was 342.33 minutes. Minimum is 9.20 m. and the maximum is 10.25 minutes. The sum is 297.35 minutes. The mean in the pre-test is 11.29 minutes and the error is 0.4625 while the mean in the answer test is 10.09 and the error is 0.3724.

Control group: It is seen that the average of 3 km run test is 11.4666 minutes and the deviation is 0.6608. The minimum statistic in the pre-test of 3 km run test is 10.33 minutes. The maximum statistic is 12.48 minutes. The minimum is 338.48 minutes, while in the answer test the minimum is 10 25 minutes and the maximum is 12.51 minutes. The sum is 337.28 minutes. The mean in the pre-test is 11.4666 minutes and the error is 0.4003 while the mean in the answer test is 11.4766 and the error is 0.3938.

Experimental & Control group 3 km run test Descriptive Statistics

Experimental & Control Group	Sample	Minimum	Maximum	Total	Mean		SD
	Number	Number	Number	Number	Number	E- Error	Number
E-Pre-test	30	10.32	12.38	342.33	11.29	0.4625	0.9363
E-Post-test	30	9.20	10.25	297.35	10.09	0.3724	0.6524
C-Pre-test	30	10.33	12.48	338.48	11.4666	0.4003	0.6608
C-Post-test	30	10.25	12.51	337.28	11.4766	0.3938	0.8604

Experimental & Control group 3 km run test Graph

**Vo2 max test(12-minute run cooper test)**

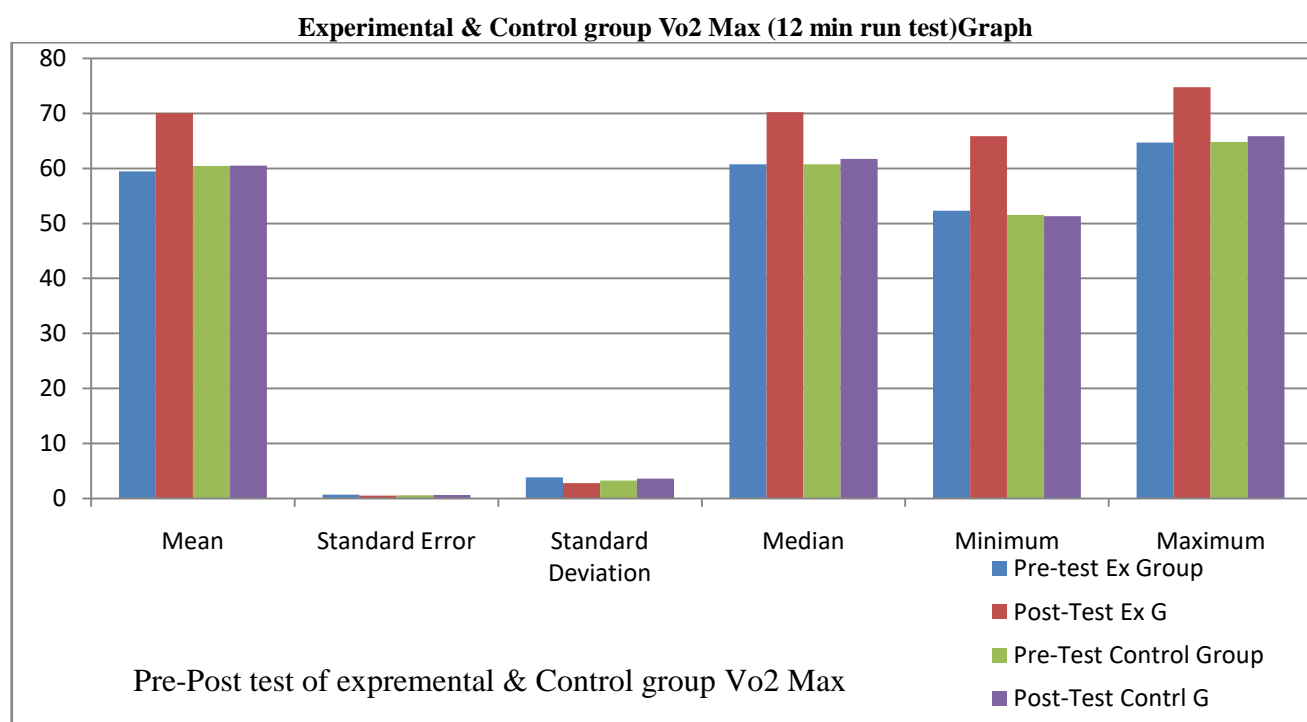
Experimental group: The 12-minute run test on the experimental group was derived using the Cooper test using the formula $Vo_2 \text{ max} = 12 \times 504.9 / 44.73$. In array number 42.5, it was found that the average of VO 2 Max test is 74.78426 meters and the deviation is 2.804001. The minimum statistical per test in the experimental group is 52.316, Maximum Statistics 64.723 Mo. That's it. So the sum is 1982546. In the answer test, at least 64.7239, the maximum is 14 78426 m. That's it. The sum is 2101 789. The average in the pre-test is

5945152 and the error is 0.703081 while in the north test the average is 70.05962 and it is 0.511938.

Control group: The mean of the VO 2 Max test is 60.46 and the deviation is 3.269. The minimum statistic in pre-load training is 51-533. The maximum statistic is 64.835. The sum is 1814.06 while the minimum in the answer test is 51.310 and the maximum is 65.841. The sum is 1814.73. The median pre-test has an error of 60.46 and the error is 0.5970 while the median test has an average of 60.49 and the error is 0.6622.

Experimental & Control group Vo2 Max (12 min run test) Descriptive Statistics

Experimental & Control Group	Sample	Minimum	Maximum	Total	Mean		SD
	Number	Number	Number	Number	Number	E- Error	Number
E-Pre-test	30	52.316	64.723	1783.5	59.451	0.7030	3.8509
E-Post-test	30	65.841	74.784	2101.7	70.059	0.5119	2.8040
C-Pre-test	30	51.533	64.835	1814.06	60.46	0.5970	3.2699
C-Post-test	30	51.310	65.841	1814.73	60.49	0.6623	3.6278



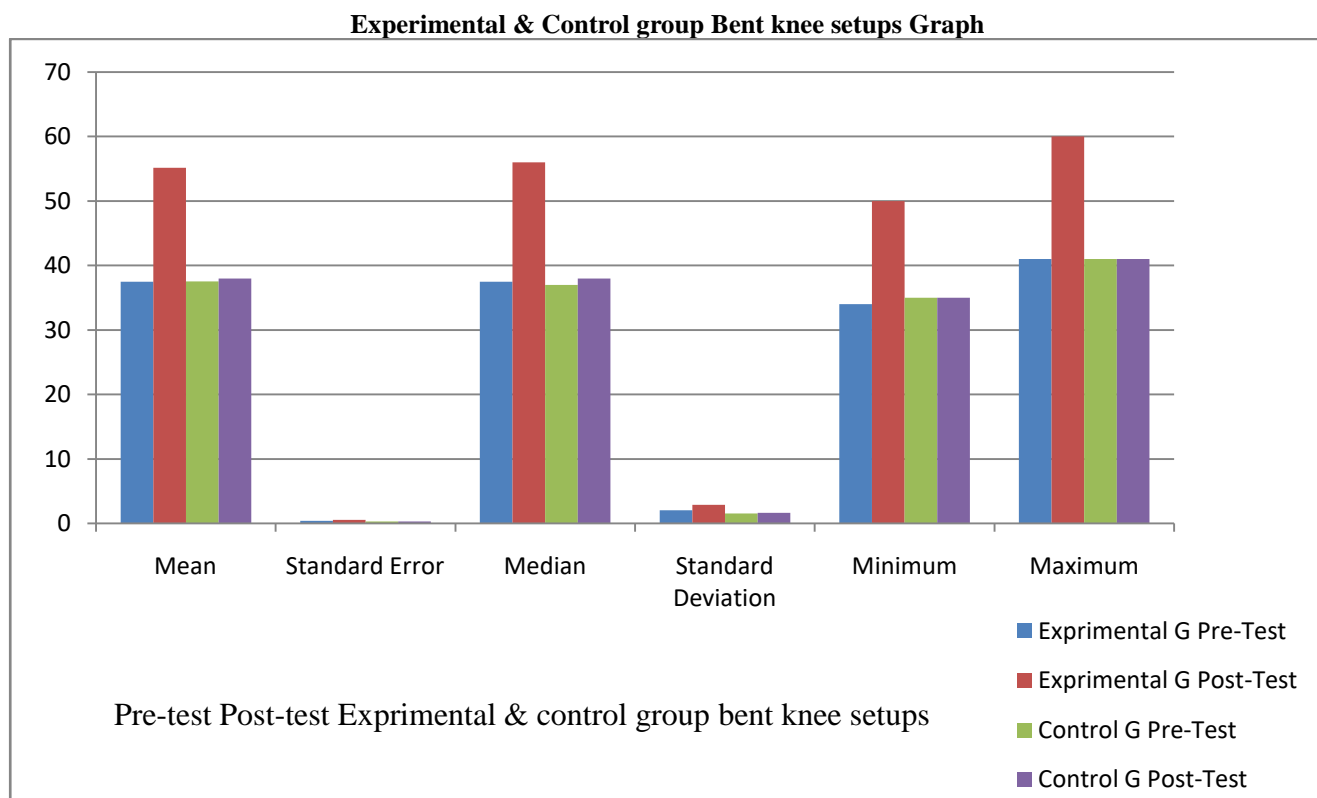
Bent knee setups

Experimental group: The Bent-knee-Setups test has an average of 55.1666 and a standard deviation of 2.8657. The minimum statistic in the pre-test of the experimental group is 37.4666. The maximum statistic is 41. The sum is 1124, while in the answer test, the minimum is 50 and the maximum is 60. The sum is 1655. The mean in the pre-test is 37.4666 and the error is 0.3726 while the mean in the north test is 55.1666 and the error is 0.5230.

Control group: That the average of the Bent knee setups testis 37 m and the scale deviation is 1.5477. The minimum statistic in the controlled group pre-test is 35. The maximum statistic is 49 m. That's it. So the sum is 1126. In the answer test, the minimum is 35 and the maximum is 41. The sum is 1140. The average in the pre-test is 37 and the error is 0.28257 while in the answer test the average is 38 and it is 0.2994.

Experimental & Control group Bent knee setupsDescriptive Statistics

Experimental & Control Group	Sample	Minimum	Maximum	Total	Mean		SD
	Number	Number	Number	Number	Number	E Error	Number
E-Pre-test	30	34	41	1124	37.4666	0.3736	2.04651
E-Post-test	30	50	60	1655	55.1666	0.5232	2.8657
C-Pre-test	30	35	41	1126	37	0.28257	1.5477
C-Post-test	30	35	41	1140	38	0.2994	1.6400



Conclusion:

The changes in the experimental group are due to the dosage of the treatment of the selected training program. The above descriptive statistical analysis shows that the 16-week selective training program has had a positive impact on the performance of the players in Sangli district. And so the performance of long distance runners has increased.

Experimental doses were found to have a meaningful effect on the given group. The above descriptive statistical analysis shows that the 16-week selective training program had a positive effect on the performance of long distance runners in Sangli district. In other words, it was found that the selection of long distance runners in Sangli district has made a difference due to selected training programs. From this, it can be seen that the selected training program has a positive effect on the performance, muscle endurance and VO_2 Max (cardiovascular endurance) of long distance runners.

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