

EFFECT OF CIRCUIT TRAINING PROGRAMME ON SELECTED PHYSICAL FITNESS COMPONENTS OF BOXERS

Dr. (Mrs) Vasanthi Kadhiravan
Associate Professor,
Department of Physical Education,
University of Mumbai, Mumbai, India.

ABSTRACT

Today sport is a worldwide phenomenon. Every physical activity has different effect on the individual as a result leads to different types of adaptation. Boxing is an explosive, anaerobic sport. Boxing is perhaps the most physically demanding sport of all. The study was conducted for the purpose to find the effect of effect of circuit training programme on selected physical fitness components of Boxers. The subjects for this study were forty voluntary male boxers aged 19 to 21 years had been selected from Ruia Boxing Academies of Mumbai. The forty selected subjects were divided into two groups viz; experimental group and control group consists of twenty subjects on each group. The selected physical fitness components i.e. Muscular Strength, Cardiovascular Endurance and Flexibility were measured before and after the circuit training programme for both the groups. The experimental group under went six weeks training programme whereas the control group was kept as sedentary. The collected data was analyzed by using 't' test for significance of difference and it has been revealed that the circuit training programme showed a significant improvement in the selected variables of Muscular Strength, Cardiovascular Endurance and Flexibility.

Key words: Circuit training, Physical fitness, flexibility

INTRODUCTION:

Today's athletes are stronger and faster. Science has evolved at an alarming rate. Boxing is an explosive, anaerobic sport. The act of throwing punches, round after round while contending with an attacking opponent is a daunting task. Boxing is perhaps the most physically demanding sport of all. Compared to other sports, Boxing requires high stamina and tremendous muscular activities for attack and counters attacks and defense and is equal only to Marathon run. It takes years of training, sacrifice, efforts, observation, intelligence and above all patience to give eight minutes i.e. Four Rounds of two minutes each display of fistic, ability before an enthusiastic and active audience. It is not merely the toughness but training tenacity, tolerance and cool temperament of a boxer which counts most in the game. Boxing is a combination of courage, tenacity,

dogged determination, mobility, stamina offensive split and the ability to remain composed under stress and strain. A boxer must punch, slip and block with split seconds movements and reactions.

METHODOLOGY:

The subjects for this study were forty voluntary male boxers aged 19 to 21 years had been selected from KD Boxing Academy of Mumbai with view to find out effect of circuit training program on selected physical fitness components. The forty selected subjects were divided into two groups viz; experimental group and control group consists of twenty subjects on each group. The post-tests and Post-test were conducted on the selected fitness components of Muscular Strength, Cardiovascular Endurance and flexibility for all the subjects of both the groups. After pre-test of the selected physical fitness components the subjects of experimental group underwent 12 weeks of circuit training programme, whereas control group did not receive any of the training, acted as control, except their regular boxing practice.

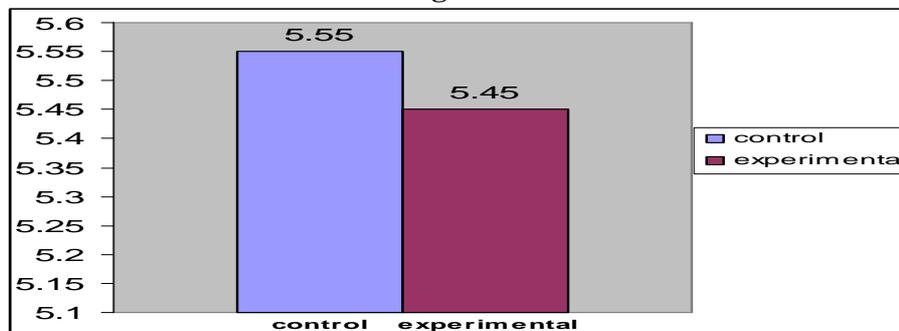
RECUITS AND FINDINGS

Comparison of Per Test Mean Gain On Muscular Strength (Pull-ups):

Group mean gains of Muscular Strength (Pull-ups) in pre test were 5.55 (SD = 2.92) and 5.45 (SD = 2.92) of control and experimental groups respectively. The mean difference and SEM were -.10 and 0.92 respectively with the 't' value -.10, which was not significant at the level of 0.05 ($p > 0.05$) which has been shown in Fig. no.1

Comparison of Per Test Mean Gain On Muscular Strength (Pull-ups)

Fig. no.1



In general sense these scores appear too similar in nature. This in turn suggests that the base line performance of both the groups was similar.

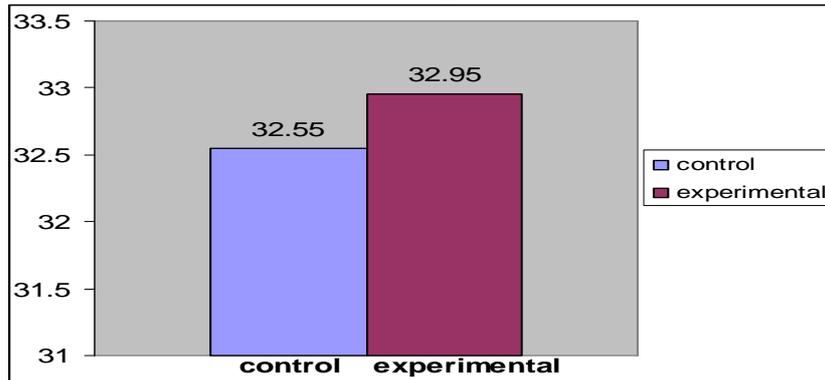
Comparison of Per Test Mean Gain On Muscular Strength (Sit-ups):

Group mean gains of Muscular Strength (Sit-ups) in pre test were 32.55 (SD = 4.96) and 32.95 (SD = 5.14) of control and experimental groups respectively. The mean difference

and SEM were 0.40 and 1.59 respectively with the 't' value 0.2, which was not significant at the level of 0.05 ($p > 0.05$) which has been shown in Fig. no.4.3.2

Comparison of Per Test Mean Gain On Muscular Strength (Sit-ups)

Fig. no.2



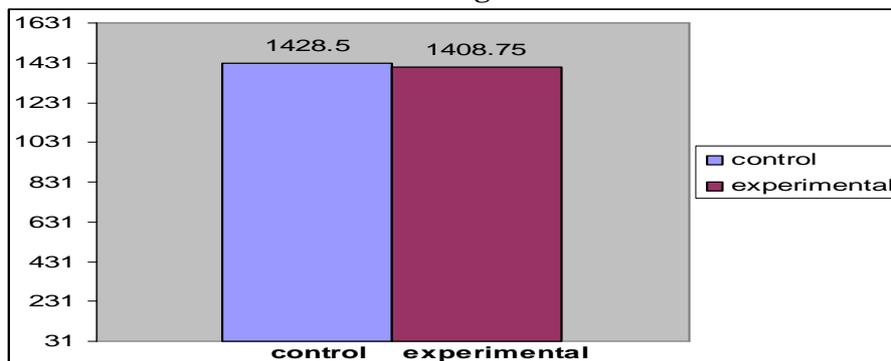
In general sense these scores appear too similar in nature. This in turn suggests that the base line performance of both the groups was similar.

Comparison of Per Test Mean Gain On Cardiovascular Endurance (12 m. run or walk):

Group mean gains of Cardiovascular Endurance (12 m. run or walk) in pre test were 1428.50 (SD = 331.38) and 1408.75 (SD = 310.78) of control and experimental groups respectively. The mean difference and SEM were -19.75 and 101.58 respectively with the 't' value -.19, which was not significant at the level of 0.05 ($p > 0.05$) which has been shown in Fig. no.4.3.3

Comparison of Per Test Mean Gain On Cardiovascular Endurance (12 m. run or walk)

Fig. no.3



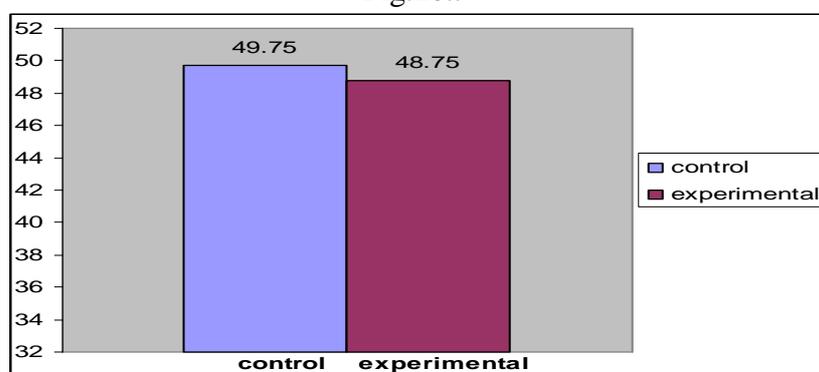
In general sense these scores appear too similar in nature. This in turn suggests that the base line performance of both the groups was similar.

Comparison of Per Test Mean Gain On Flexibility (Sit and Reach):

Group mean gains of Flexibility (Sit and Reach) in pre test were 49.75(SD = 10.54) and 48.75 (SD = 8.96) of control and experimental groups respectively. The mean difference and SEM were -1.0 and 3.09 respectively with the 't' value -.32, which was not significant at the level of 0.05 ($p > 0.05$) which has been shown in Fig. no. 4

Comparison of Per Test Mean Gain On Flexibility (Sit and Reach)

Fig.no..4



In general sense these scores appear too similar in nature. This in turn suggests that the base line performance of both the groups was similar.

References:

1. Dong Jinxia: *Women, Sport and Society in Modern China: Holding Up More Than Half the Sky*, Routledge, 2002,
2. Allen Guttmann: *Women's Sports: A History*, Columbia University Press 1992,
3. Helen Jefferson Lenskyj: *Out of Bounds: Women, Sport and Sexuality*. Women's Press, 1986.
4. Helen Jefferson Lenskyj: *Out on the Field: Gender, Sport and Sexualities*. Women's Press, 2003.
5. Australian Sport Commission; Office of the Status of Women (1985). *Women, Sport and the Media*. Australian Government Publishing Services.
6. Community, Sport and Cultural Development - Province of British Columbia (2011). "[BC ATHLETE ASSISTANCE PROGRAMS 2010 - 2011 Provincial Sport Organization Guidelines, Policies and Procedures](#)". Retrieved 26 March 2011.

7. Crocombe, R G (2007). *Asia in the Pacific Islands: replacing the West*. CIPS Publications, University of the South Pacific.
8. Dyer, K F (1982). *Challenging the Men, The social biology of female sporting achievement*. University of Queensland Press.
9. Howell, Reet; Howell, Max (1988). *Aussie Gold, A celebration of every Australian Olympic Gold Medal since 1896*. Melbourne, Victoria: Brooks-Waterloo. [ISBN 0864406800](#).
10. International Olympic Committee (February 2008). "[The sports on the Olympic programme](#)". Retrieved 26 March 2011.
11. International Softball Federation (5 September 2006). "[USA Wins 2006 Women's World Championship](#)". [International Softball Federation](#). Retrieved 2007-03-18.
12. Jones, Diane (February 2004). "[Half the Story? Olympic Women on the ABC News Online](#)". *Media International Australia incorporating Culture and Policy* (110): 132–146. Retrieved 15 March 2011.
13. Massoa, Prisca; Fasting, Kari (December 2002). "Women and sport in Tanzania". In Pfister, Gertrud; Hartmann-Tews, Ilse. *Sport and Women: Social Issues in International Perspective*. International Society for Comparative Physical Education & Sport. [Routledge](#). [ISBN 0415246288](#).

http://www.sportanddev.org/learnmore/sport_and_gender

<http://www.aogyaworld.org/global-advocacy-for-ncds/outreach-to-women>

<http://www.fig-gymnastics.com/cache/html/12121-116-10001.html>