

# # C741218 MAJOR PHYSICAL EDUCATION

KEY WORD CIRCUIT TRAINING/ WATER WORKOUT/ PHYSICAL FITNESS/ CIRCUIT TRAINING IN WATER AND ON LAND/ AQUATIC CIRCUIT TRAINING

VANIDA SRISUK EFFECTS OF CIRCUIT TRAINING IN WATER AND ON LAND UPON THE PHYSICAL FITNESS OF COLLEGE OF PHYSICAL EDUCATION CHON BURI ATHLETES THESIS ADVISOR ASSO PROF VIJIT KANUNGSUKKASEM, Ph.D. 159 pp ISBN 974-636-686-6.

The purpose of this study was to investigate the effects of circuit training in water and on land upon the physical fitness of athletes of the College of Physical Education Chon Buri. The subjects were 60 male athletes, 18-24 years of age, from the College of Physical Education Chon Buri. The subjects were randomly assigned into 3 groups, according to the maximum oxygen uptake. Each group consisted of 20 athletes : the control group had no training, the first experimental group did circuit training on land and the second experimental group did circuit training in water. Both experimental groups trained three days a week for one hour per day for a period of twelve weeks. The data of resting heart rate, legs and back muscle strength, maximum oxygen uptake, percent of body fat, and legs and arms muscle endurance of all groups were taken before and after the fourth, the eight, and the twelfth week, respectively, to analyze the means and standard deviations. One-way Analysis of Variance and Multiple comparison by the Tukey (a) were also employed for statistical analysis.

The results indicated that there were significantly better differences of resting heart rate, maximum oxygen uptake, percent of body fat, and legs and arms muscle endurance in the two experimental groups than the control group. However, there were no significant differences in all physical fitness variables between the two experimental groups.

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