

Siwaporn Pangpark 2008: The Effect of a Circuit Training Program on Health-Related Physical Fitness of Military Recruits Wing 4 in Nakhon Sawan Province. Master of Arts (Physical Education), Major Field: Physical Education, Department of Physical Education. Thesis Advisor: Associate Professor Boonsong Kosa, Ph.D. 111 pages.

The purposes of this research were to study the effect of a circuit training program on health - related physical fitness of Military Recruits Wing 4 in Nakhon Sawan Province and to construct a Health - Related Physical Fitness training program norms for Military Recruits Wing 4 in Nakhon Sawan Province.

The subjects were 200 male Military Recruits. They were selected by using purposive sampling and divided into two experimental groups. The Experimental Group 1 was on a circuit training program and Experimental Group 2 Wing 4 on the training program. The instrument used in this study were the circuit training program of AAHPERD health - related physical fitness test which consisted of four items: 1.5 mile walk/run, modified sit-ups 1 minute, forward flexion and body mass index. The data were analyzed by mean and standard deviation, independent z-test for testing the significance of the variance with repeated and multiple comparison testing by Tukey 's method at the .05 level of significance.

Results showed as follows : 1) The health - related physical fitness mean of Experimental Group 1 had a significant difference at .05 in item 1.5 mile walk/run and modified sit-ups 1 minute after the 4<sup>th</sup>, 6<sup>th</sup> and 8<sup>th</sup> weeks. But body mass index and forward flexion had no significant difference at .05 level. 2) The health - related physical fitness mean of the Experimental Group 2 had a significant difference at .05 in the item on 1.5 mile walk/run modified sit-ups 1 minute and forward flexion after the 4<sup>th</sup>, 6<sup>th</sup> and 8<sup>th</sup> weeks, but body mass index had no significant difference at .05 level. 3) The health - related physical fitness mean between the two experimental groups after the 8<sup>th</sup> week in The 1.5 mile walk/run modified sit-ups 1 minute and forward flexion had a significant difference at .05 level. But body mass index had no significant difference at .05 level. 4) The Health - Related Physical Fitness Norm for Military Recruits Wing 4 in Nakhon Sawan Province are presented in the following levels: excellent, good, fair, poor and very poor. In the item on 1.5 miles walk/run (1 minute), excellent = 11.87 or lower; good = 11.88-12.98; fair = 12.99-14.08; poor = 14.09 -15.18; and very poor = 15.18 or higher. In modified sit-ups 1 minute (times), excellent = 57 or higher; good = 55 - 56; fair = 53-54; poor = 51-52; and very poor = 50 or lower. In the item on forward flexion (centimeter), excellent = 19 or higher; good = 16.5-18; fair = 14.5 -16; poor = 12.5-14; and very poor = 12 or lower. In the item on body mass index(kilogram/meter<sup>2</sup>) excellent = 19.13 or lower; good = 19.14-20.08; fair = 20.09-21.0; poor = 21.04-21.9 ; very poor = 22 or higher.



Student's signature



Thesis Advisor's signature

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