

Pattarapon Hemhong 2011: The Effect of the Matrix of Nine Squares Training and Flexibility on Agility. Master of Science (Sports Science), Major Field: Sports Science, Interdisciplinary Graduate Program. Thesis Advisor: Associate Professor Charoen Krabuanrat, M.Ed. 101 pages.

The purpose of this study was to investigate and to compare the effect of the matrix of nine squares training and flexibility training on agility after 4<sup>th</sup> and 8<sup>th</sup> weeks of training. Forty subjects were randomly sampling from Private first class soldiers from King Mongkut Hospital, Bangkok, ranging of age between 21-22 years old. Subjects were divided into 4 groups, 10 in each group. The control group did not receive training whereas the experimental group 1 practiced the matrix of nine squares, the experimental group 2 practiced flexibility and the experimental group 3 practiced the matrix of nine squares and flexibility, three days a week on Monday, Wednesday and Friday from 5.00 to 7.00 am. Agility was measured in all groups before and after the 4<sup>th</sup> and 8<sup>th</sup> weeks of training. Data were analyzed using analysis of variance with repeated measures and multiple comparisons were conducted through Tukey's method. All statistical significance was set at .05 level.

Results indicated that the agility mean scores of the experimental groups 1, 2 and 3 after the 4<sup>th</sup> and 8<sup>th</sup> weeks of training were significantly better than the control group. However, agility mean scores of the experimental group 1, 2 and 3 did not significantly differ. Further, the agility mean scores of all the experimental groups after the 4<sup>th</sup> and 8<sup>th</sup> weeks of training were better than prior to training. In summary, all training methods were appropriated for developing agility. In additions, the matrix of nine squares training combined with flexibility was the best method to develop agility, whereas solely training with the matrix of nine squares and flexibility training ranked 2<sup>nd</sup> and 3<sup>rd</sup> in improving the agility.

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Thesis Advisor's signature