

Worrawut Thuwakum 2007: The Effect of Plyometric Training upon Arm, Leg Muscle Power and Accuracy of Long Distance Basketball Shooting. Master of Arts (Physical Education), Major Field: Physical Education, Department of Physical Education. Thesis Advisor: Associate Professor Kornrawee Boonchai, Ed.D. 110 pages.

The purpose of the research was to study the effect of plyometric training program upon arm, leg muscle power and the accuracy of long distance basketball shooting. The population were 30 male basketball players, ages of 14-18, who were studying in Princess Chulaporn Chiangrai College and Samakeewitayakom school, Changwat Chiangrai.

The instrument used were long distance basketball shooting and plyometric training programs which developed by the researcher and were approved by 7 experts. The population were pre-tested on long distance basketball shooting for accuracy, arm and leg muscle power prior to the training period then were divided into two groups, 15 for each group. The first experimental group trained with basketball shooting program for one hour per day while the second experimental group trained with basketball shooting program and also trained for 40 minutes with plyometric training program. Both groups were trained three days a week for 8 weeks. The accuracy of long distance basketball shooting, arm and leg muscle power were made again after the fourth and the eighth week of training. The data were analyzed by using mean, standard deviation, independent t-test, one-way analyzed of variance with repeated measures and Tukey method.

The results were as follows: 1) After 8 weeks of training, the accuracy of long distance basketball shooting, arm and leg muscle power of the second experimental group increased significantly at the .05 level. As the first experimental group increased significantly on the accuracy of long distance basketball shooting and leg muscle power while there was no significant increase on arm muscle power. 2) The second experiment group showed higher improvement on the accuracy of long distance basketball shooting, arm and leg muscle power than the first experimental group at the .05 level.

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