International Journal of Physical Education, Vol. 4 No. 1 (April, 2011) : 70-72

Research Paper :

Effect of physical training on accuracy of dexterous

S. VIJAY AND V. GOPINATH

Received : *February, 2011;* **Accepted :** *March, 2011*

See end of the article for authors' affiliations

Correspondence to:

V. GOPINATJ
Department of Physical Education and Sports Sciences, Annamalai Univeristy, Annamalai Nagar, CHIDAMBARAM (T.N.) INDIA

ABSTRACT

The purpose of the study was to find out the effect of physical training on accuracy of dexterous. For the propose, 40 right hand dominance men students from Department of Engineering and Technology, Annamalai University, Tamil Nadu, India were selected as subjects at random and their age ranged between 18-21 years, the selected subjects were divided in to two equal groups of twenty subjects each namely physical training (n=20) and control (n=20). The physical training group underwent training for fifteen weeks, four days per week and sixty minutes per day including warming up and cooling down exercises. The hand peg accuracy (grooved peg board test) and throwing accuracy (throw for accuracy) were selected as dependent variables and tested before and after the experimental period for both the groups. The collected data were analyzed by using ANCOVA. Further, independent 't' was calculated to find out the difference between left and right hand and the magnitude of improvement was also calculated to find out the level of improvement on dexterous. Level of confidence was fixed at 0.05. The result of the study showed that the physical training improved the accuracy level (hand accuracy and throwing accuracy) compared to control group. The difference between right and left hand on accuracy level was significant. However, the percentage of improvement for both the variables (hand accuracy and throwing accuracy) was in favour of left hand compared to right. Hence, it was concluded that physical training may be given to improve the dexterous (use of hands) level and quality.

Vijay, S. and Gopinath, V. (2011). Effect of physical training on accuracy of dexterous. *Internat. J. Phy. Edu.*, **4** (1) : 70-72.

Key words : Physical training, Accuracy, Dexterous

Physical training has been shown to be an effective way to improve the force-producing capacity of hand muscles and to partially reverse the changes observed in the muscle architecture (Izquierdo, 2003). Mysterious reasons, the right hand significantly gains on the left hand, it is many times superior in accuracy and the facility to dominate coordination. Trough dexterity testing is usually provided the result that shows the both quickness and accuracy of the subject in performing any kind of dexterity task. Dexterity testing products examine a person's motor skills with regards to the fingers, hand and arms Bernstein, (1991).

Various exam in actions exist to measure such performance abilities as eye-hand coordination, quickness at performing assembly tasks, and overall motor skill development. The dexterity naturally involve the use of some combination of fingers on both hands to follow some designated testing procedure, such as placing pegs into a pegboard, accuracy of throwing the ball, and so on. Some dexterity tests check for the subject's ability to use not only the hands, but also test arms and shoulders more extensively as well Starosta, (1990). Manual speed and accuracy tests are designed to measure an individual's manual dexterity. Manual dexterity is all about that ability to make fine finger movements, repetitively, rapidly and accurately. Relevant for roles that need accurate fine finger movements such as machine operators, jewellers, sports persons and surgeons.

Handedness is an attribute of humans defined by their unequal distribution of fine motor skill between the left and right hands. An individual who is more dexterous with the right hand is called right-handed (sinistralists), and one who is more skilled with the left is said to be left-handed (dextralists). Minorities of people are equally skilled with both hands, and are termed ambidextrous (Kabbash, 1994).

METHODOLOGY

For the propose of the study, 40 right hand dominance men students from the Department of Engineering and Technology, Annamalai University, Tamil Nadu, India were selected as subjects at random and their aged between