Research Paper :

Analysis of psychomotor quality between high and low achievers of south zone Inter University men Tennis players

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ABSTRACT

The aim of this study was to analyses psychomotor quality between high achievers and low achievers of south zone inter university men tennis players. For the propose of the study, 44 men tennis players who participated in South Zone Inter University tennis tournament 2009-10 held at Annamalai University, were selected and divided into two groups Group – I low achievers (losers of 1st and 2nd round n= 26), Group – II high achievers (qualifiers of semi finales n=18). The collected data on whipple hand steadiness test were analyzed by using unequaled "t" test, the level of confidence was fixed at 0.05. The result showed that the high achievers were having better psychomotor quality when compared with low achievers. Hence, it was concluded that psychomotor (hand steadiness) quality may increase the achievement level in tennis.

Key words : Psychomotor quality, Hand steadiness, Tennis players

This study analyses the psychomotor quality of high and low achievers of tennis players who participated in south zone inter university tennis tournament. Psychomotor means relating to movement or muscular activity associated with mental processes. Psychomotor skill implies the ability to use the human body in responding to stimuli involving movement. As the units that make up the sports and athletic games of physical education are based on the human fundamental skills, proficiency in psychomotor skill is reflected in a person's performance in sports and games. According to Barrow and McGee (1973) "Sports skills are the heart of physical education programme and the key to future participation. Therefore, a test of sports skills is a true test of psychomotor skill.

Steadiness is an important component of skills that requires aiming and general immobility such as shooting, pistol marksmanship, archery, dart throwing and all games. Hand steadiness is the ability to hold one's arm and hand in a specific position for a relatively short period of time. This is a psychomotor phenomenon. It depends upon the combination of psychological processes as well as the motor events of the body. It determines the success in sports events like archery, shooting and rocket sports (Chmura *et al.*, 2002).

As arm-hand steadiness is a psychomotor function, it is influenced by various psychological factors and anything that will affect the psychomotor system will hence affect arm-hand steadiness. Various drugs like central nervous system stimulants or depressants, artificial hormones like oral contraceptives, alter the performance of psychomotor tasks as do the changes of physiological parameters in the body or the environmental conditions. The individual's state of mind being another important criteria that cannot be ignored. Not only the state of mind during the testing procedure like anxiety, depression, lack of concentration or disturbance of sleep-wake cycle that can affect the score but also the general mental well being of an individual (Rendi *et al.*, 2007).

The psychomotor ability have been influencing the performance of athletes in various sports and athletics such as hand steadiness, Control precision, Finger dexterity, Manual dexterity etc., for this research, the hand steadiness was taken as the psychomotor quality of low and high achievers of south zone inter university men tennis players.

METHODOLOGY

The sample of 44 men tennis players who have participated South Zone Inter University tennis tournament 2009 – 10, held at Annamalai University were selected as subjects. Their age range was between 18 to 24 years. According to their performance, the subjects were divided into two groups. Group – I low achievers (losers of 1st and 2nd round n= 26), Group – II high achievers (qualifiers of semi finales n=18).All subjects were tested for hand steadiness test of left and right hand with the help of whipple hand steadiness equipment (McCormick and Tiffin, 1974).The data collected were statistically analyzed by unequaled "t" test, to know the mean difference between the groups for significance. Level of confidence