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Comparison the service accuracy of university tennis player and state level tennis players

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Abstract

The study compared the service accuracy of university players and state level tennis players. Forty (40) students who play tennis were selected. In this study, The subjects were selected from LNIPE university and GCTA club those have participated at University and MP state ranking level tournaments and also have three years of experience. These subjects were tested at tennis court by Hewitt Tennis skill test. Using independent t tests, it was determined whether there was a significant difference between university Tennis players and state level Tennis players at 0.05 level of significance.

Keywords: Accuracy, tennis, service, power and state player

Introduction

The sport of tennis is played on a rectangular court, where two opposing players use rackets to hit balls of specified size and weight over the net. A high-intensity sport, it requires rapid accelerations, decelerations, and directional changes (hotwani, 2021) ^[1].

Serving is a crucial part of a tennis match, where the player can have a significant impact on how the point proceeds (Elliott, B. (1988) ^[2]. The speed of the first serve is generally considered to be the most important factor that determines its performance, with players generally attempting to maximize their serve speeds without sacrificing accuracy. It is also important to note that racket string has a significant impact on ball speed and accuracy (Xu, X. F. 2012) ^[6]. Over the years, tennis has evolved from the wooden-racket era of long, crafty points based on style and finesse, to the current fast-paced, explosive sport of power, strength, and speed, in which serves reach 210 km/h (Kovacs, 2007) ^[3]. The service in Lawn Tennis begins with a 90 degree shoulder abduction and in the cocking phase, external rotation is performed. When the shoulder rotates externally, it moves rapidly into internal rotation, abduction, and forward flexion. In the deceleration phase, the external rotators control the movement. During a tennis serve, the lower leg, hip, and trunk generate over 50% of the total kinetic energy and force (Nirjhar Mohanta *et al.*, 2019) ^[4]. The service movement skill is important for a smooth and efficient service performance as it requires optimal timing, coordination, and strength across many body segments (P Malliou, 2010) ^[5].

Serving is the most important shot in tennis. Because of its powerful deliveries and short points, it is even more crucial in men's professional tennis. This is the one shot that is guaranteed to occur in every rally, and in many cases, the only shot allowed (jeff, 2017) ^[11]. To compare the service accuracy of university Tennis players and state level Tennis players

Methodology

From LNIPE University and GCTA club, Gwalior, Forty (40) tennis players were selected as subjects for the study. Twenty (20) players represented university and Twenty (20) players participated in MP state ranking tournaments. Their ages ranged from 16 to 23 years and they had at least three years of playing experience. We tested our selected subjects on tennis court by using Hewitt tennis skill test as criterion variables.

The collected data was analysed using independent t test to find out the significant difference between university tennis players and State level tennis players. SPSS statistics software package was used. The α value of 0.05 was set for statistical significance.

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Result

Table 1: Mean, Standard Deviation and 't' Value of University Tennis Players And State Level Tennis Players

Variable	University Players		State players		't' value
	Mean	Standard Deviation	Mean	Standard Deviation	
Accuracy	71.15	4.10	68.35	3.88	2.25*

*Significance at 0.05 level

It is evident from the table that there is a significant difference between two groups. In strokes Accuracy, university level tennis players mean value is 71.15 with standard deviation is 4.10 and State level tennis players mean value is 68.35 with standard deviation is 3.88 and the 't' value is 2.25. The mean differences are found in both the groups and calculated 't' values are greater than the tabulated value. This shows that university level tennis players are more better accuracy as compared to State level tennis players.

Conclusions

We can conclude from the above analysis that there is a significant difference in Accuracy between University players and state level players. This may be due to more practice, maturity, understanding level, more focused during practiced etc.

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