



ISSN: 2456-0057
IJPNPE 2019; 4(2): 58-60
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www.journalofsports.com
Received: 21-05-2019
Accepted: 23-06-2019

Tilak Kumar BS
Ph.D. University College of
Physical Education, Bangalore
University, Bengaluru,
Karnataka, India

A comparative study on coordinative abilities between Bangalore University and Bangalore central university male volleyball players

Tilak Kumar BS

Abstract

The purpose of the study was to compare the Coordinative abilities between Bangalore University and Bangalore central university male volleyball players. Total fifty (50) male volleyball players (25 players from Bangalore University and 25 players from Bangalore Central University Players) were selected as subjects. Differentiation ability, Orientation ability, Balance ability and Reaction ability, were the Coordinative abilities selected for the study. The data was analyzed to find out the significant difference between the groups. 't'- test statistical technique was used to analyze the significant difference and the level of significance was set at 0.05 level. The results showed that there was significant difference between Bangalore University and Bangalore central university male volleyball players, for their Coordinative abilities.

Keywords: Coordinative ability, differentiation ability, orientation ability, balance ability, reaction ability

Introduction

Physical activity has been a part of the lives of most people. Human evolution started with movement. The development of the homo-sapiens was largely dependent on the movement of muscles. It must be noted that the primitive man was involved in physical activity which was primarily a survival activity due to the never-ending search for food, clothing, shelter or protection from the argumentative environment. It becomes a means of preparing youth for a future life, as sports and games are taken from life activities, and become a recognized way to improve strength, speed and skill and other qualities necessary not only for survival. Coordinative abilities are those abilities which stabilized and generalized pattern of motor control. These abilities have proven to help the sportsman to do a group of movements with better quality, efficiency and effect, Coordination ability means an ability to quickly and firmly perform difficult spatio-temporal movement structures. Within this situation, coordination abilities are understood as an externally visible expression of the control and edict processes of the motor activity of the central nervous system. The complex of coordination abilities consists of a group of basic coordination abilities.

Human being is an integration of the body and mind. Both components through their combinations make him more flourishing. The mental process and the physical expression are beautifully interweave in the mechanism of the whole man and his wholeness in no case should be made to suffer by separating mental and physical aspects (Kamlesh 1988).

Man's life is a continuous flow of activity. Every moment he is doing something and his every activity is the result of the joint efforts of the body and mind; more integrated efforts yield more success to the individual. Things in this world, outside us, come via the body (some organs) into our mind and things in our mind reach the world outside through the body (Sushil Chandra Gupta 1983). The thought of performance related fitness is an elusive term that has been studied extensively over the past several years, and it has been classified by some experts as an aspect of physical fitness. Balance, coordination, agility, speed of movement, and power are among the most frequently cited components of performance-related fitness (Ali 2005). Coordination motor abilities are particularly important at the initial stages of the sports development of a competitor

Correspondence
Tilak Kumar BS
Ph.D. University College of
Physical Education, Bangalore
University, Bengaluru,
Karnataka, India

(Zimmermann, Nicklisch, 1981, Raczek, 1989, Ljach, 1995, Raczek *et al.*, 2002) ^[5, 6, 7]. A high level of coordination improvement since the earliest years makes it possible to make use of technical and tactical skills during a sports competition effectively (Szczepanik, 1993, Ljach, 1995, Sadowski, 2003, Starosta, 2003, Gierczuk, 2004) ^[5, 6]. A well-formed basis of Coordination motor abilities in young sportsmen is maintained at a later age and is an important reason for faster and more accurate teaching of other, more difficult movement tasks (Raczek *et al.*, 2002) ^[7]. Especially in sports, in addition to mobility, the coordinative abilities strength, endurance, speed abilities and constitutional conditions are the prerequisites for developing high athletic performance. Starting from a high level of coordinative abilities, athletes can learn and improve athletic motor abilities and techniques that are required for the specific sport more quickly and with a higher degree of quality. (Hartmann *et al.*, 2002) "Training of proprioception means primarily the training of balance ability.

It aims specifically at the improvement of depth perception and the resulting reflex muscle activity and concerns partial aspects of the overall coordinative abilities." (Hafelinger and Schuba 2004)

Objective

The Purpose of the study was to compare the coordinative abilities between Bangalore University and Bangalore central university male volleyball players.

Material & Methods

Selection of Subjects Total fifty (50) male volleyball players (25 players from Bangalore University and 25 players from Bangalore Central University Players) were selected as subjects during their respective intercollegiate tournaments.

Selection of variables

The following four coordinative abilities were selected for the purpose of this research.

1. Differentiation ability: - It was determined by using backward medicine ball throw test and was recorded in points.
2. Orientation ability: - It was assessed by using medicine ball run test and was recorded in 1/100th of second.
3. Balance ability: - This variable was assessed by using 'Stork Stand Test' and was record in 1/100th seconds.
4. Reaction ability: - This variable was evaluated by using 'Visual Reaction Timer' and was recorded in 1/100th seconds.

Statistical Procedure

After the collection of relevant data, to compare the selected coordinative abilities between volley ball players from Bangalore University and volley ball players from Bangalore Central University 't'-test was employed. The level of significance was set at 0.05.

Analysis of Data and Results

Table 1: Mean and Standard Deviation of selected Differentiation ability of volley ball players from Bangalore University and volley ball players from Bangalore Central University

Group	Mean	Standard Deviation	Standard Error Mean	t-value
Bangalore University volley ball players	10.09	2.065	0.379	6.759*
Bangalore Central University volley ball players	12.65	2.765	0.395	

Level of Significance .05 df=48 Table 't'-value at .05(1.980)

Table 2: Mean and Standard Deviation of selected Orientation ability of volley ball players from Bangalore University and volley ball players from Bangalore Central University

Group	Mean	Standard Deviation	Standard Error Mean	t-value
Bangalore University volley ball players	6.99	0.749	0.1102	8.678*
Bangalore Central University volley ball players	9.52	1.0012	0.1347	

Level of Significance .05 df=48 Table 't'-value at .05(1.980)

Table 3: Mean and Standard Deviation of selected Balance ability of volley ball players from Bangalore University and volley ball players from Bangalore Central University

Group	Mean	Standard Deviation	Standard Error Mean	t-value
Bangalore University volley ball players	9.843	1.1314	0.1543	4.03*
Bangalore Central University volley ball players	8.712	1.346	0.1846	

Level of Significance .05 df=48 Table 't'-value at .05(1.980)

Discussion and Findings

The statistical analysis of data shows that there were significant differences for coordinative abilities i.e. Differentiation Ability, Orientation Ability, Balance and Reaction Ability between male volley ball players from Bangalore University and volley ball players from Bangalore Central University. The better space orientation ability of the volley ball players may be attributed due to the reason that the ball has to travel certain distance always to reach the opponents court. That too with a certain speed during the play. The reaction ability of the volley ball players found significant, may be due to the complex situations prevail in the game of volleyball especially during attack where the flight path of the ball is almost uncertain. Moreover, the ball travels fast in volleyball during many occasions

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