

**“Relationship between Physical Motor Evaluation Criteria  
(Playing Ability in Volleyball) and Motor Fitness Components of Professional  
Students of Physical Education in Different Universities of Rajasthan”**

**\*Dr. Manoj Kumar Choudhary**

**Abstract**

It has been widely accepted by the educationalist that physical education is the core of education system as well as the integral part of the education process. In the present study these are certain accepted principals which have to be apply so that athletes and the players are able to show best performance in the sports. Sport psychology is mainly concerned with psycho regulative analysis of sports ability and performance. For the evaluation of Physical education and sports both cognitive and psycho motor development plays vital role. The psycho motor or the practical aspect of any game as well as considered the development of motor fitness as well as the development of fundamental and technical skills both.

The purpose of the study was to find out relationship between different skill and motor fitness components in the contest of psychomotor development of professional student of physical education of different Universities of Rajasthan. For the psycho- motor evaluation criteria i) Service ii) Service Reception and pass iii) Pass and set up iv) Set and spike variables were randomly selected and for the purpose of the study. The following motor fitness components were selected i) Agility ii) Explosive strength iii) Cardio respiratory endurance iv) flexibility.

For the result of the study – find out the relationship of psychomotor evaluation and motor fitness component of professional players of Volleyball from different Universities of Rajasthan.

Correlation was applied to calculate the data.

**Keywords** - Cognitive, Psychomotor etc.

**Introduction**

Physical education and sports provides various activities for the worth use of leisure and educate the youth for real life. The application of psychological principles to the improvement of performance in sports has received greater attention in these days. There are certain accepted principles, which have to be applied so that athletes and players are able to show their best performance in sports. Sports psychology is mainly concerned with psycho – regulative analysis of sports ability and performance. The psyche for sports essentially requires development of psychological plan of conditioning, training, mental pressure and the ability to perform well under pressure.

For the evaluation of physical education & sports both cognitive and psychomotor development plays vital role. Cognitive development is increased knowledge & understanding. Psychomotor factor is commonly used for grading purpose in physical education. Physical education contributed to psychomotor development in following ways. Physical education contributed to movement skill as participants and spectator in sports and other physical Activities.

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The qualities of performance of all fundamental mechanical skills, the system flow, accuracy, amplitude etc. are improved by coordinative & psychomotor abilities. It helps in developing very fine extra credible skills. Motor coordination is a part and parcel of action regulation and is hence closely linked with the processes of cognitive, psychic and movement execution aspect of an action. Experts in training recently have been using the terms “technique” and

“co-ordinative abilities” together as are performance factor, Since both are interrelated and interdependent. They are common in the process of taking in and processing information for regulation of action. When enable the sportsman to direct and control his movement according to changing situation.

The psychomotor or the practical aspect of any game considers the development of motor fitness/physical fitness as well as the development of fundamental skills and technical skills combination. In the present study the training emphasis is mainly laid on. The development of psychomotor evolution criteria for volleyball players. In the present research the normal practices adopted for evaluation the psychomotor domain is through separately administering the motor fitness test & man use of objective skills test as well as subjective rating by the experts. To fulfil the purpose of the study researcher prepared a single specific battery combining different psychomotor aspects of performance in playing ability in volleyball.

#### **Objective of the Study**

The main purpose of test is relationship between psychomotor evaluative criteria , Playing ability like serve reception and pass, pass and set-up, set-up – spike semo -agility, vertical jumps etc. and motor component 05 professional students of physical education in different University of Rajasthan.

#### **Methodology**

The main aim of the different skills & motor fitness components in contest of psychomotor development & professional students of physical education of different universities. 60 students were selected randomly undergoing volleyball specialization from six universities namely, University of Rajasthan, Jaipur, M.D.S University, Ajmer, M.G.S University, Bikaner, University of Kota, J.N.U. University, Jodhpur and M.L.S. University, Udaipur.

#### **Collection of Data**

The data's were collected from ten students from each university & considering only the physical educations specialization group in volleyball as a source of data.

For the psychomotor evaluation criteria we selected four volleyball skills like:-

- i) The serve
- ii) Service reception & pass
- iii) Pass & setup
- iv) Set & spike

And four motor fitness components like:-

- i) Agility
- ii) Explosive strength
- iii) Cardio Respiratory endurance
- iv) Flexibility.

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All the data's were collected by personal visits of his researcher and with the help of qualified volleyball players. And correlation statistics was used for the purpose of this study and for testing the hypothesis .05 level of significance was used.

Firstly mean & standard deviation was calendared & the correlation was employed for find out the relationship of test battery on volleyball players.

### Result of the Study and Conclusion of the Study -

**Table-I**

Relationship between Playing Ability of Professional Students of Volleyball of Different Universities of Rajasthan

S.No.	Variables Correlated	Obtained Value of Correlation (r)
1	Serve	.544
2	Service Reception & Pass	.260
3	Pass and Setup	.401
4	Setup & Spike	.380
5	Semo - Agility	.580
6	Vertical Jumps	.324
7	Lateral Jump	.446
8	Supine Shoulder & Wrist extension (inch)	.339

The table -1 revealed that correlation coefficient obtained between different playing ability skills and motor fitness components of professional students of volleyball in different Universities & Rajasthan. Playing ability of Volleyball service (.544), pass & setup (.401), setup & spike (.380) were found to be significantly correlated as their calculated value of these skills were more than the tabulated value at .05 level of significance. And service reception and pass (.260) were not found to be significantly correlated because calculated value is less than the table value. As in motor fitness component semo agility (.598), vertical jump (.324), lateral Jump (.446) & supine shoulder & Wrist extention (.339) were found significantly correlated with each other as their calculated value is higher than the table value as .05 level of confidence.

### APPENDIX-1

#### QUESTIONNAIRE FOR COGNITIVE EVALUATION CRITERIA

NAME : \_\_\_\_\_

ROLL NO.: \_\_\_\_\_

#### INSTRUCTIONS

There are 15 objective type questions which are to be answered by putting a (\_\_\_) mark in front of the correct or the appropriate answers. All questions carry equal marks and one point will be awarded each for a correct answer. If two responses are marked for any statement no credit will be awarded for the same.

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Time: 20 Minutes

Max. Marks: 15

Note: answer all questions: All questions carry equal marks.

1. Which spike is generally the easiest to hit?
  - a) Down the line
  - b) Cross court to the middle
  - c) Dink
2. What movements contribute to the height of the jump on hitting a spike?
  - a) Leg extension
  - b) Upward movement of the arms
  - c) Leg extension and upward movement of the arms
3. What is the difference in hitting a spike and a dink?
  - a) The height of the jump
  - b) The amount of wrist action
  - c) The amount of shoulder rotation before the hit
4. What should a player be watching when getting ready to block?
  - a) The ball
  - b) The setter
  - c) The spiker
5. What is the most important aspect of the floating serve?
  - a) The speed of the ball
  - b) The spin on the ball
  - c) Lack of spin on the ball
6. A team uses the centre back player to dig spiked what is the defense called?
  - a) An M defense
  - b) A middle-back defense
  - c) A W defense
7. A team is using two setters and four spikers. What is this offence called?
  - a) A 2-4 attack
  - b) A 4-2 attack
  - c) A four hitter attack
8. What is a multiple offence?
  - a) A situation in which two players are eligible to spike
  - b) A situation in which setter is a back row player
  - c) A team with many complicated play.
9. What is no-block defense?
  - a) A situation in which no attempt is made to block a hard hit spike
  - b) A situation in which the attempt to blocking a spike is missed.
  - c) A situation in which the defensive position is taken because the opponents cannot aggressively spike the ball
10. What is an one-hand spike?
  - a) One in which the spiker hits a high ball with the open hand.
  - b) One in which the right-handed spiker hits a ball coming from the right
  - c) One in which the right handed spiker hits the ball coming from the left
11. What is the disadvantage of the 4-2 offence?
  - a) Requires highly skilled players
  - b) Does not provide for multiple offence

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- c) Requires exceptional setting ability
12. What is the purpose of the attack block?
- a) To hit the ball before the spiker can  
b) To hit the spiker with the blocked ball  
c) To hit the ball before it crosses the net.
13. Which spike will probably be angled more sharply downward
- a) One set close to the net  
b) One set to the on-hand spiker  
c) One set to the off-hand
14. Which spike will probably be angled more sharply downward
- a) One set to close to the net  
b) One set to the on -hand spiker  
c) One set to the off-hand spiker
15. Which serve is the best offensive weapon?
- a) Floater  
b) Round House  
c) Tennis Serve

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