

## **A Study on Physical Fitness Components of Cricketers at Different Level of Competition University and College**

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### **ABSTRACT**

The purpose of the study was to compare the skill related physical fitness components of cricket players at different level of opposition. An institution of 40 subjects elderly 21-28 years participated in the study. The purposive sampling method turned into used to reap the objectives of the look at. They had been in addition divided into two groups of 20 each (i.e.,  $N_1=20$ ; college and  $N_2=20$ ; university). The unpaired t-test becomes carried out to find out the widespread differences among college and university male cricket gamers. To test the hypotheses, the level of significance becomes set at 0.05. The results discovered massive variations among university and college male cricket gamers on the variables i.e. Reaction Time, Balance Power Speed agility and Coordination and university stage players completed higher than college gamers on all of the variables.

**KEYWORDS:** Physical fitness, components of cricketers, Competition University and college

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### **I. INTRODUCTION**

Cricket is a recreation wherein fitness is historically now not concept of as very critical. The importance of fitness in any recreation can't be underlined. The fitter you are the better you may play. But Cricket is one such game which tests your game competencies, intellectual power, stamina and physical endurance as well. The different test gambling countries have rightfully placed more emphasis on health recently and are reaping the benefits. With the introduction of someday Cricket and greater lately Twenty 20, the sport has long past via major changes and the physical needs made on a cricketer's body have additionally improved dramatically.

Depending at the version of the sport being performed and the role of the player in the team, the importance of fitness will range: the fitness necessities of a fast bowler might be extra and also exclusive than that of an opening batsman, and one-day cricket may be more stressful than a check in shape.

Since Cricket is a group sport, all the players are required to be in action. It takes plenty of stamina for bowlers to throw the ball speedy, accurate and without overstepping. The fielders have to be alert and at vigil all the time. They need to sprint, chase the leather-based and make a dive to prevent the ball before it crosses the boundary line. The batsman ought to require the stamina to run continuously between the wickets and the power had to execute big pictures. The umpires too require plenty of patience and versatility to perform their duties. But the most 'fittest' player in a cricket sport is surely the wicket-keeper. Chirping and hoping at the back of the stumps, a wicket-keeper has to constantly stand on his feet. A wicket-keeper displays exceptional stage of physicality.

### **Purpose of the Study**

The main purpose of the present study was to compare the physical fitness components of cricketers at different level of Competition University and college.

### **II. METHODOLOGY**

A total Forty ( $N=40$ ) male subjects aged between 21-28 years were selected for this study. The purposive sampling technique was used to attain the objectives of the study. All the subjects, after having been informed about the objective and protocol of the study, gave their consent and volunteered to participate in this study. They were further divided into two groups of 20 each (i.e.,  $N_1=20$ ; university and  $N_2=20$ ; college).

**Table 1:** Details of physical fitness components, tests

S.No	Physical Fitness Components	Tests	Unit of Measurement
1.	Reaction Time	Nelson hand reaction time test	in $1/10^{\text{th}}$ of sec
2.	Balance	Stork balance stand test	in $1/10^{\text{th}}$ of sec
3.	Power	Standing broad jump	Meters

4.	Speed	30 yard dash	in 1/10 <sup>th</sup> of sec
5.	Agility	Illinois agility test	in 1/10 <sup>th</sup> of sec
6.	Coordination	Eye hand coordination test	in 1/10 <sup>th</sup> of sec

### III. RESULTS

**Table 2: Mean, Standard Deviation, Standard Error of the Mean, t-value and p-value of cricket players at different level of competition**

Variables	Mean		SD		SEM		t-value	p-value
	University	College	University	College	University	College		
Reaction Time	0.21	0.23	0.023	0.009	0.005	0.002	2.13*	0.0394
Balance	27.45	24.10	5.48	4.81	1.23	1.08	2.05*	0.0469
Power	2.28	2.03	0.31	0.43	0.07	0.09	2.02*	0.0499
Speed	6.72	7.03	0.57	0.28	0.12	0.06	2.09*	0.0425
Agility	6.71	9.24	0.66	1.31	0.14	0.29	7.69*	0.0001
Coordination	22.45	28.75	3.90	3.90	0.87	1.19	4.28*	0.0001

#### Reaction Time

Table shows that the mean of response time of university and college gamers turned into 0.21 and 0.23 respectively, whereas the usual deviation (SD) of reaction time of university and college gamers was 0.023 and 0.009 respectively. The critical value of t at 95% possibility degree is a good deal lower (1.697) than the located value of t (2.13\*). The statistics does suggest that the variations among university and college players in regard to response time are significant.

#### Balance

Table suggests of stability of university and college gamers changed into 27.45 and 24.10 respectively, whereas the same old deviation (SD) of balance of university and college gamers become 5.48 and 4.81 respectively. The essential value of t at 95% opportunity level is a great deal decrease (1.697) than the located value of t (2.05\*). The information does advocate that the variations between university and college players in regard to balance are considerable.

#### Power

Table indicates that imply of power of university and college gamers was 2.28 and 2.03 respectively, while the same old deviation (SD) of power of university and college players was 0.31 and 0.43 respectively. The critical value of t at 95% opportunity level is a lot lower (1.697) than the observed value of t (2.02\*). The fact does suggest that the differences among university and college players in regard to energy are sizable.

#### Speed

Table suggests of velocity of university and college players changed into 6.72 and 7.03 respectively, whereas the same old deviation (SD) of velocity of university and college players was 0.57 and 0.28 respectively. The essential price of t at 95% probability stage is a lot lower (1.697) than the found value of t (2.09\*). The record does advise that the variations between university and college players in regard to speed are vast.

#### Agility

Table shows that the mean of agility of university and college gamers was 6.71 and 9.24 respectively, whereas the standard deviation (SD) of agility of university and college gamers turned into 0.66 and 1.31 respectively. The essential value of t at 95% opportunity level is a good deal lower (1.697) than the determined price of t (7.69 \*). The information does propose that the differences among university and college players in regard to agility are significant.

#### Coordination

Table indicates that the mean of coordination of university and college gamers become 22.45 and 28.75 respectively, whereas the usual deviation (SD) of coordination of university and college gamers became 3.90 and 3.90 respectively. The important value of t at 95% opportunity degree is lots decrease (1.697) than the observed value of t (4.28\*). The record does suggest that the variations among university and college gamers in regard to coordination are enormous.

### IV. DISCUSSION

Since the historical times, it's been believed that a suitable body is crucial to achieve achievement especially sports activities. Judging the performance of the human body via its size, shape and form has been a topic of great difficulty. Physical and physiological components are crucial factors that have contributed to the success of countrywide and worldwide opposition in sports activities. Team cricket, like numerous other ball

video games, requires no longer simplest technical and tactical capabilities however also first rate deal of physical fitness.

The evaluation of records relating dating of physical fitness variables with sports activities performance amongst cricketers found out high-quality full-size courting in regards to the sub-variables; abdominal strength persistence, agility, explosive leg strength, pace, and cardiovascular staying power. However, insignificant courting between sports performance and motor health sub-variable; shoulder electricity turned into observed. The nice sizable dating indicates that motor health variables are contributing issue in excessive level cricket overall performance. An excellent cricketer requires excessive level of physical fitness further to other elements for producing excessive overall performance.

The final result of study is probably because of the truth that the cricket performance is complex phenomena and direct bio-made of motor moves. Hence, the superior degree of abdominal power endurance, agility, explosive leg power, speed, and cardiovascular persistence is vital to carry out the cricketing talents efficiently with requisite grace, accuracy and prolonged duration. The insignificant association among motor fitness component; shoulder power persistence and cricket performance turned into found as the shoulder strength persistence is likewise an indispensable issue of cricket performance, specifically amongst pace bowlers but the present examine changed into conducted on batsmen, all-rounders and spin bowlers which might have hindered the association between these two variables. The findings of the present are in step with the findings in reality explicated that motor fitness had tremendous courting with the playing capacity of the Cricket gamers.

## V. CONCLUSION

On the idea of the findings, it is able to be concluded that university gamers are higher in typical skill related physical fitness than their counterpart collegiate as they scored higher decided on talent related health additives viz. Reaction time, balance, power, velocity, agility and coordination.

It is concluded that better physical fitness is related to higher sports activities overall performance among cricketers. The physical fitness additives are negative factors contribute toward better overall performance in cricket. Therefore, it is advocated that coaches, sports activities trainers and players involved in the system of sports activities schooling have to take utmost care of physical improvement in their sports activities persons as it has already been installed with the aid of diverse researches that the variable in query is an crucial thing for advanced sports activities performance.

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