

**Original scientific paper**

## **LOCUS OF CONTROL OF CRICKET PLAYERS**

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**Abstract:** Locus of control (LOC) refers to an individual's perception about the underlying main causes of events in her/his life. The cause and effect could be either internal or external because, it is about the belief of an individual. Knowing that it is an important aspect of personality, we decided to explore whether locus of control differs among the cricket players. To study the locus of control among cricket players, an English version of Indian adaptation of Raval, P. H. of Rotter's locus of control was used to collect the data, statistical analysis has been performed on the selected sample of 148 players. Results show that LOC among cricket players of course, depends on the level of participation as well as on their specialization such as, batsmen; fast-bowlers, slow-bowler wicket-keeper and all-rounder. Fast bowler all-rounder is more internally controlled on the scale of locus of control than other sub-groups. International level of cricket players show the tendency of internal locus of control compared to Sch/College/Club level of cricket players which has tendency to show external locus of control.

**Key words:** Locus of control, Cricket players

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## INTRODUCTION

In modern society recreational and sports activities have fallen within the reach of masses and have assumed ever greater importance in the life of masses. Electronics media has contributed a lot to the enhancement of sports awareness of the people. Sports whether amateur or professional in some way or other interact with all our major social situations. Moreover, it is proved and found by scientific research that recreation or play is a fundamental necessity of a person. Mead (1934) famous sociologist has also supported and postulated the views that sports and games provide a medium for the development of self. Similarly Kane (1970) viewed sports as an integral part of society with wide social acceptance and popularity. Almost every person living on the Asian continent irrespective of his position and status is very much interested in the cricket game and the gossip that goes with it. This game has become the routine commodity and is unavoidable part of life of Asian peoples (specially the Indian) like newspaper, Television, and Tea. Therefore, many social scientists and psychologists are particularly interested in identifying those qualities of the players which distinguish them from normal person. This question has been answered using different tools, over a period of time; but the one that has been used by Rotter (1972) has distinguished itself. The tool, known as social learning theory, is based on the Internal and External Locus of Control (LOC) and has attained an important role in personality research.

This tool has been applied variously. Di-Giuseppe (1973) and Gilliland (1974) have applied this tool to find out the differences in the LOC between a team and individual athletes, between athletes and non-athletes and concluded that there is no difference in LOC in both the cases. Aguglia and Sapienza (1984) have applied this theory and concluded that volleyball players are externally controlled and playing captains of volleyball of both sexes are internally controlled. Even on the basis of this theory, Mckelvie and Husband (1980) have concluded that Volleyball players are externally control and playing captains of volleyball of both sexes are internally controlled. Mckelvie and Husband (1980) also did not find any significant difference in locus of control between the team and individual athletes and between athletes and non-athletes. Kunhikrishnan and Stephen (1992) also concluded that there is sex difference in locus of control. Bal, Singh & Singh (2010) has concluded that there is no significant difference between team and individual games on the basis of locus of control. Furthermore, Gupta and Renuka (2011) have shown no gender differences in the perception of LOC, whereas Lynn et al (1969), Morris et al (1979), Anand et.al (1985, 1986), Pathak et. al (1986), Kamlesh et. al (1986), found that athletes are internally controlled on locus of control on the basis of their study. Kerr and Goss (1957) also found in their study of

individual sports athletes that, elite female gymnasts were found to have an external locus of control.

## **LOCUS OF CONTROL**

LOC is the degree to which people report a sense of personal control. Locus of control has been dichotomized as internal or external Rotter (1966). An internal LOC believes an event occurs as a product of her/his own behaviour. External LOC believes that an event is the product of chance, luck, or the influence of other people.

Locus of control in psychology has been already applied in different kinds of sports with enormous success and can be applied directly to cricket, which can help the sportspersons with their on field success. Since, the concept of locus of control, as derived from social learning theory, provides a useful means for measuring individual differences in the extent to which reinforcement is viewed as a consequence of one's own behavior or a consequence of such forces as "chance", "fate", or "power of others". Like other game, even in the game of cricket when dealing with Cricket adversity, it is very easy for

cricket players to quickly point the finger and blame everyone/everything i.e. umpire, coach, playing conditions, ground, the politics of the selection process, number of batting or bowling order, fielding, teammate etc.

No doubt, extensive work has been reported in the area of locus of control during last decade and the concept has diversified application in various fields of human activity. As far as locus of control for cricket players are concerned, while reviewing the related literature, we could not find any rigorous analysis report. Therefore, we decided to take this work forward by considering cricket player as our domain of study.

This study is an attempt to explore the possibility of there could be a significant difference in the distribution of locus of control among cricket players, as per their specialization i.e. batsman (BAT), fast bowler (FB), slow bowler (SB), wicketkeeper (WK), fast bowler all-rounder (FAR), and slow bowler all-rounder (SAR).

## **METHOD**

Our study is based on the sample size of 148 cricket players, out of which there are 111 male and 37 female players, who have participated at different level of competitions such as, international (IN), national (NAT), and school/college/club (SCL/COL/CLB). These players were further divided into sub groups on the basis of their specialization i.e. batsman (BAT), fast bowler

(FB), slow bowler (SB), wicket-keeper (WK), fast bowler all-rounder (FAR), slow bowler all-rounder (SAR). English version of Indian adaptation of Raval (1988) of Rotter's Locus of control was administered on these 111 male and 37 female cricket players. It was a purposive incidental sample. After scrutinizing, some respondent were discarded due to inconsistent and incomplete responses. To make equal number in each group, some respondent were discarded by using the Lot method (Hartigan, 1975). The data was analysed by using  $\chi^2$ - One way analysis and K-mean clustering method (Hartigan, 1975). The Indian adaptation of locus of control, which is developed by Rotter, consists of 23 items and 6 filler items that sampled widely from different life situations, where locus of control attitude might relevant to behaviour. Each item would provide an adequate sampling of situations in which internal-external attitudes might be expected to affect behaviour. This is a forced-choice instrument which consist of 29 pairs of statements, 23 of which are scored, each alternative keyed as to a belief in either internal or external control of reinforcing event

Our aim in this work was to test the null hypothesis whether cricket players are internally or externally controlled at the level of locus of control irrespective of their expertise and level of participation. Cricket players have internal or external locus of control.

### Scoring and interpretation

Out of 29 pairs of statement, 23 of which are scored. These are 6 filler items (item no. 1,8,14,19,24,27) which are not scored for each item, internal alternatives to be endorsed as score are given as per the key. On locus of control scales following three categories are considered in the study:

- |                                |                    |
|--------------------------------|--------------------|
| a) Internal Score 0-9          | = External         |
| b) Internal Score 10-13        | = Moderate/Average |
| c) Internal Score 14 and above | = Internal         |

## RESULTS AND DISCUSSION

We start our study by first analyzing the results on the basis of applying one way-  $\chi^2$  test on sample size of 148 players. The decision is made on the basis of control scales categories and obtained as a result of statistical analysis which has been depicted in Table 1 below. As it can be seen from the Table 1, the maximum players occupy the position in internal category of locus of control followed by moderate and external one. The statistical significance is at 0.01 accepted levels, which indicates us that it is safe to reject the null hypothesis and therefore conclude that cricket players have shown the tendency of possessing internal locus of control.

**Table 1.** *Locus of control:  $\chi^2$  - One way analysis*

VARIABLE	N	Internal	Moderate	External	d/f	$\chi^2$	Sig
Locus of control	148	78	51	19	2	150	0.01

In the next step of analysis, we have tested the hypothesis whether the level of participation changes locus of control. To perform statistical analysis and as a result to conclude, we again use  $\chi^2$  test and employ  $3 \times 3$  analysis. This analysis was done to explore whether locus of control differs at different level of participation. The control criteria remain same as Table 1. The result obtained on this basis is listed in Table 2, which is given below.

**Table 2.** *Locus of Control v/s Level of Participation*

Level of participation	Ext	Mod.	Int.	Total
International	3	8	26	37
National	4	18	15	37
SCL/COL/CLB	5	14	18	37
<b>Total</b>	<b>12</b>	<b>40</b>	<b>59</b>	<b>111</b>

$$df = 4 ; \chi^2 = 19.41; \text{Sig} = 0.05$$

The Table 2 shows the result obtained along with the frequencies in each cell based on locus of control and level of participation.  $\chi^2$  test is significant at 0.05 acceptance level. Hence the null hypothesis is rejected here and therefore concluded that cricket players are more internally control on locus of control. International level of cricket players is more internally control on locus of control than other two groups i.e. Nat /SCL/COL/CLB level of cricket players.

**Table 3.** *Locus of Control v/s Level of Participation (Including female cricket players)*

Level of participation	Ext	Mod.	Int.	Total
International	3	8	26	37
National	4	18	15	37
SCL/COL/CLB	5	14	18	37
Female(National)	7	11	19	37
<b>Total</b>	<b>19</b>	<b>51</b>	<b>78</b>	<b>148</b>

$$df = 6; \chi^2 = 9.43; \text{Sig} = 0.05$$

The Table 3 shows the result obtained along with the frequencies in each cell based on locus of control and level of participation. Compared to Table 2, the only difference in this case is the inclusion of women cricket players. We wanted to test whether the conclusion drawn from Table 2 is valid even we include women cricket players. For this very purpose, we performed  $\chi^2$  test, which suggests that it is not significant at 0.05 accept level hence the null Hypothesis is accepted here and therefore concluded that there is no difference in the distribution of locus of control among the three level of participation along with the fourth sub-group of female participation as a special reference.

**Table 4.** *Locus of Control v/s Specialization of Players*

<b>Specialization</b>	<b>Ext</b>	<b>Mod</b>	<b>Int</b>	<b>Total</b>
BAT	2	18	28	48
F.B	0	8	9	17
W.K.	1	4	1	6
S.B.	3	6	2	11
FAR	5	10	26	41
SAR	8	5	12	25
<b>Total</b>	<b>19</b>	<b>51</b>	<b>78</b>	<b>148</b>

$$df = 10; \chi^2=26.15; Sig=.05$$

In the next step, we wanted to find out whether locus of control depends on the specialization of players. For this very purpose, we again used  $\chi^2$  test and performing  $6 \times 3$  analysis. The Table 4 shows the result obtained along with the frequencies in each cell based on locus of control and level of specialization.  $\chi^2$  is significant at 0.05 level hence the null Hypothesis is rejected here and therefore concluded that there is significant difference in the distribution of locus of control among the BAT, FB, WK, SB, FAR and SAR.

Batsmen (BAT) and fast bowler all-rounder (FAR) are more internal on locus of control in comparison to others sub-groups.

We analysed the data further to ascertain our observation by using the K-means clustering method suggested by Hartigen (Raval, 1988) which is used for the tracing the cluster and interrelation of each factor with all others factors in terms of mean score on each comparable group. This analysis was under taken by using SYSTAT package in which “F” ratio are calculated, distance of one factor in respect to all other factor is estimated.

**Table 5. Cluster I**

N	Variable	Minimum	Mean	Maximum	S. D.
74	I	13	14.34	16	0.99

The score express the internality. The higher the score refers to high internality. While tracing the cluster of locus of control three clusters has been formed mean value of I score of Cluster I (Table 5) which consist of 74 cricket players mean value is 14.34 and standard deviation (S.D) is 0.99. When compared to test norms (I= 14 and above Internal) this cluster show the tendency of in internal locus of control.

**Table 6. Cluster II**

N	Variable	Minimum	Mean	Maximum	S.D
51	I	7	10.20	12	1.48

Table 6 of cluster II of locus of control reveals that 51 cricket players falls in this category. The mean value is 10.20 and S.D is 1.48. When compared to test norms (I = 10-13 Moderate) the cluster II of locus of control show the moderate/ tendency on locus of control scale.

**Table 7. Cluster III**

N	Variable	Minimum	Mean	Maximum	S.D
23	I	17	17.74	19	0.79

Table 7 of cluster III of locus reveal that 23 cricket players falls in this category. The mean value is 17.74 and S.D. is 0.79 when compared to the test norms this cluster shows the tendency of internal locus of control.

**Table 8. Summary of cluster III**

N	Variable	Between SS	DF	Within SS	DF	F ratio	Prob.
148	9	1021.4.25	2	199.028	145	372.07	0.00

The summary (Table 8) of cluster III of locus of control reveal that the analysis of variance (ANOVA) shows highly significant difference between SS and within SS, as it shows 00 probability. Cluster I and cluster III shows the tendency of internal locus of control but cluster no III have higher internality, whereas cluster no II show the moderate tendency on locus of control, hence it is concluded that cricket players have the internal locus of control.

## CONCLUSION

As a result of this study, we would like to conclude that, in general, cricket players are more internally controlled on the scale of locus of control. The magnitude of internality control on the scale of LOC differs on two factors, namely - level of participation and level of specialization. The level of participation include, i.e., IN, NAT, and SCL/COL/CLB level and six specialist sub-groups namely BAT, FB, SB, WK, SAR FAR. International levels of players are more internally controlled than others.

Similarly batsmen, fast bowlers all-rounder are more internally-oriented on locus of control than other sub-groups. Thus, it could be concluded that cricket players are internally controlled on Locus of control.



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