

Analysis of collective efficacy factors of volleyball player

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Abstract

In sport, it has also been referred to as team efficacy or team confidence. Collective efficacy beliefs are important because, theoretically, they in fluency what people choose to do as team members, how much effort they put in to their team endeavours, and their persistency when collective effort fail to produce quick result or encounter forcibly. The purpose of the study was to analyse the collective efficacy of volleyball players. The subjects selected for the study were male volleyball players. The players were selected from the volleyball teams who took part in quarterfinal of 39th Junior National Level Championship 2012-13 conducted at Shri Dungargarh, Bikaner (Rajasthan) from 22 December 2012 to 28 December 2012. A total of 102 Players were investigated in which eight players from Devi Ahilya University, Indore (who participated in west zone) 48 players (12 each player from one team) of top four teams i.e. Uttar Pradesh, Rajasthan, Punjab, Andhra Pradesh and 46 players (10 players from Karnataka and 12 each from three team) of remaining four team i.e. Tamilnadu, West Bengal, Karnataka, Haryana were selected to serve as subject for this study. The criterion measure chosen for the study were the scores obtained in the collective efficacy questionnaire prepared by Sandra E. Short, Philip Sullivan and Deborah L. Feltz. All items were scored on a 10-point Liker-type scale where 0(not at all confident) to 9 (extremely confident) to measure efficacy strength. Ten male junior national volleyball players aged below 19 years (age: 17-19. \pm 0.55 yrs., Height 1.86 \pm 0.07 meter, Weight 57 \pm 18.35 Kg) as a subject.

The data obtained after administering the questionnaire was analyzed using Descriptive Statistics (Mean, Standard Deviation) and One-way Analysis of Variance (ANOVA). it is concluded that there is no significance difference in factors of collective efficacies i.e. Ability, Effort, Preparation, Unity and Persistence of 39th Junior National Volleyball top four teams, remaining four teams and West Zone Volleyball players of Devi Ahilya University, Indore.

Keywords: Collective Efficacy, Volleyball, Unity and Persistence

1. Introduction

Collective efficacy is the degree which to which individual in a system believes that they can organise and exude course of action required to achieve collection goals. Collective efficacy helps to promote meaningful social change because such change in embedded within a network of social influences. Collective efficacy is considered with people's confidence in their joint capabilities to accomplish set goals and two with stand opposition and setbacks. Individual community change reacquired the people in a system work together to change their levee for the better. For this process to begin, people need to believe that they can soul their mutually experienced problems through unified effort.

Collective efficacy is considered a team-level attribute. Its measurement almost always occurs on an individual level. At the individual level of assessment, people make judgement about their teams capabilities to accomplish certain task; teams don't. Issue pertaining to level a of analysis concern how the data are used in research. Analysis at the individual level would used individual perception of collective efficacy and would be appropriate for investigating the relation between perception of collecting efficacy and players' satisfaction. Collective efficacy refers to a groups shared belief in its conjoint capability to organise and acute execute the course of action required producing given levels of attainment. In sport, it has also been referred to as team efficacy or team confidence. Collective efficacy beliefs are important because, theoretically, they in fluency what people choose to do as team members, how much effort they put in to their team endeavours, and their

persistency when collective effort fail to produce quick result or encounter forcibly. The higher perceived collective efficacy, the higher team's motivational investment in their under takings, stronger their staying power in the face off impediments and setbacks, and the grater their performance accomplishment.

Collective efficacy focuses on the group's shared beliefs in its capacities to organize and execute actions to produce a desired goal (Bandura, 1997). Collective efficacy is considered to be rooted in self-efficacy in that knowledge of personal efficacy is not unrelated to perceived group efficacy (Bandura, 1982). However, the aggregate performance of a group of athletes does not appear to be simply the sum of individual efforts but a more complex interaction of interpersonal and situational factors (George & Feltz, 1995). For instance, in a sport such as basketball where teammates depend on each other's performance to achieve overall success, individual miscues or lack of confidence (missing a free-throw) can disrupt a team's ability to achieve specific goals. Although it appears self and collective efficacy involve different psychological processes, they do share some common characteristics. For instance, both constructs are task-specific in that beliefs of attaining success are related to specific goals. Additionally, comparisons can be made between the similar sources of information for self and collective efficacy (Bandura, 1997). For instance, vicarious experience is regarded as a source of efficacy. Therefore, observing another athlete with similar athletic attributes succeed in sport may have similar effects as observing another team with similar characteristics achieve success. To date, few

empirical studies have addressed these issues. Collective efficacy also has important implications for motivation at the group level, particularly with regards to group cohesion (Zander, 1971). Spink (1990) states the factors of efficacy and cohesion are correlated when established as precursors to performance success. To date, few studies have assessed the influence of motivational factors on performance accomplishments at the group level. This research is considered difficult to conduct since data accumulated from members of a team consist of individual perceptions and perceptions assumed from the team as a whole. For instance, an aggregation bias can develop if within-group variability is not taken into account when assessing group phenomenon at the individual level.

Previous research on team training suggests the importance of a team's beliefs about their capacity to work as a team, referred to here as collective efficacy. According to a recent review of research on collective efficacy beliefs, stronger perceived collective efficacy is associated with higher group aspirations and motivational investment in a group's tasks, stronger staying power in the face of impediments and setbacks, higher morale and resilience to stressors, and greater performance accomplishments. Meta-analyses have also shown support for the influential role of efficacy beliefs. However, the literature is not complete and certainly when we try to understand the development of collective efficacy amongst cross-cultural teams, we find a lack of research and theory for measurement, for understanding its development and for understanding its influence on training.

1.2 Statement of the Problem

The purpose of the study was to “Analysis the collective efficacy of volleyball players”.

1.3 Hypothesis

It was hypothesized that there will be no significant difference in collective efficacy of Devi Ahilya inter university volleyball players and remaining four teams and top four teams of 39th junior national volleyball players.

2. Material and Methods

The subjects selected for the study were male volleyball players. The players were selected from the volleyball teams who took part in quarterfinal of 39th Junior National Level Championship 2012-13 conducted at Shri Dungargarh, Bikaner (Rajasthan) from 22 December 2012 to 28 December 2012. A total of 102 Players were investigated in which eight players from Devi Ahilya University, Indore (who participated in west zone) 48 players (12 each player from one team) of top four teams i.e. Uttar Pradesh, Rajasthan, Punjab, Andhra Pradesh and 46 players (10 players from Karnataka and 12 each from three team) of remaining four team i.e. Tamilnadu, West Bengal, Karnataka, Haryana were selected to serve as subject for this study.

The detail of the subjects on which data was collected has been presented in Table-1:

Table 1: Details Of Junior National Volleyball Top Four Teams

S.No.	State	Position	Subjects
1.	Uttar Pradesh	1	12
2.	Rajasthan	2	12
3.	Punjab	3	12
4.	Andhra Pradesh	4	12
Total of Number of Subjects			48

Table 2: Details of Junior National Volleyball Remaining Teams Reaching Quarterfinals

S.No.	State	Subjects
1.	Tamilnadu	12
2.	West Bengal	12
3.	Karnataka	10
4.	Haryana	12
Total Number of subjects		46

2.1 Criterion Measure

The criterion measure chosen for the study were the scores obtained in the collective efficacy questionnaire prepared by Sandra E. Short, Philip Sullivan and Deborah L. Feltz.

2.2 Description and Administration of questionnaire

The questionnaire on collective efficacy prepared by Sandra E. Short, Philip Sullivan and Deborah L. Feltz has twenty items, which has five collective efficacy factors namely: Ability, Effort, Preparation, Persistence and Unity having four each items i.e. (a) Ability (items: 1,5,14,15), (b) Effort (items: 8,10,16,17), (c) Persistence (items: 3,7,9,11), (d) Preparation (items: 4,12,18,19) and (e) unity (items: 2,6,13,20).

All items were scored on a 10-point Likert-type scale where 0(not at all confident) to 9 (extremely confident) to measure efficacy strength.

The questionnaire on collective efficacy was administered on eight volleyball players who participated in west zone from Devi Ahilya University, Indore, players of the top four team and remaining four teams reaching quarterfinal of 39th Junior National Volleyball Championship held at Shari Dungargarh, Bikaner (Rajasthan) from 22 December 2012 to 28 December 2012.

The researcher himself gone to the tournament and request and convinced coaches to communicate their team player to respond the questionnaire. The purpose and description of the questionnaire on collective efficacy was explained by the researcher to the players. Questionnaire was distributed,

instruction and directions were read by the scholar at dictation speed to make the subjects understand about what they were exactly required to do. Confidentially of responses was guaranteed so that the subject would not camouflage their real feelings. All subjects were instructed to respond independently. There was no time limit for the completion of the questionnaire but the subjects were instructed not to ponder too long over any statement and respond to all statement in the questionnaire independently. Responses from the subjects on each statement of collective efficacy were recorded for analysis of data.

2.3 Statistical Procedure

The data obtained after administering the questionnaire was analyzed using Descriptive Statistics (Mean, Standard Deviation) and One-way Analysis of Variance (ANOVA).

Ten male junior national volleyball players aged below 19 years (age: 17-19. \pm 0.55 yrs., Height 1.86 \pm 0.07 meter, Weight 57 \pm 18.35 Kg) as a subject. All subjects had participated in 39th Junior National Championship for boys and girls held at Shari Dungargarh, Bikaner, Rajasthan from 22-12-2012 to 28-12-2012. All of them had practiced volleyball regularly for the last three years and participated in Sub-Junior National Championships. The researcher has obtained approval by the Organizing Committee of Competition and Volleyball Federation of India.

3 Results

The results are presented in following tables:

Table 3: Means and Standard Deviations of Selected Groups of Male Volleyball Players on Collective Efficacy

	Mean	Standard Deviation
Collective Efficacy		
1. Top 4 Teams	162.85	13.65
2. Remaining 4 Teams	158.39	19.61
3. Inter Collegiate	152.25	15.23
Ability		
1. Top 4 Teams	32.21	3.40
2. Remaining 4 Teams	30.93	5.08
3. Inter Collegiate	29.12	2.47
Effort		
1. Top 4 Teams	32.56	3.44
2. Remaining 4 Teams	31.48	5.51
3. Inter Collegiate	29.62	5.21
Persistence		
1. Top 4 Teams	32.14	3.18
2. Remaining 4 Teams	30.19	4.82
3. Inter Collegiate	29.12	2.85
Preparation		
1. Top 4 Teams	33.02	4.05
2. Remaining 4 Teams	33.28	4.06
3. Inter Collegiate	33.37	3.05
Unity		
1. Top 4 Teams	32.92	3.96
2. Remaining 4 Teams	32.50	4.47
3. Inter Collegiate	31.00	3.78

Table 4: Analysis Of Variance of Ability Factors of Collective Efficacy

Source of Variance	df	Sum of Squares	Mean Sum of Squares	F – ratio	tab F
Between Groups	2	82.72	41.35	2.34*	3.09
Within Groups	99	1749.60	17.67		
Total	101	1832.32			

*Not Significant at 0.05 level
tab $F_{0.05}(2,99) = 3.09$

It is evident from Table-4 that there is no significant difference in Ability factor among top four teams, remaining four teams from 39th Junior National Volleyball Championship and West

Zone University Volleyball players of Devi Ahilya University, Indore as the obtained F value of 2.34 is less than the tabulated F value of 3.09.

Table 5: Analysis Of Variance of Effort Factor of Collective Efficacy

Source of Variance	df	Sum of Squares	Mean Sum of Squares	F – ratio	tab F
Between Groups	2	70.32	35.1	1.64*	3.09
Within Groups	99	2111.17	21.32		
Total	101	2181.49			

*Not Significant at 0.05 level
tab $F_{0.05}(2,99) = 3.09$

It is evident from Table-5 that there is no significant difference in Effort factor among top four teams, remaining four teams from 39th Junior National Volleyball Championship and West Zone University Volleyball players of Devi Ahilya University, Indore as the obtained F value of 1.64 is less than the tabulated F value of 3.09.

Table 6: Analysis Of Variance of Persistence Factor of Collective Efficacy

Source of Variance	df	Sum of Squares	Mean Sum of Squares	F – ratio	tab F
Between Groups	2	120.82	60.40	3.79*	3.09
Within Groups	99	1578.09	15.94		
Total	101	1698.91			

*Significant at 0.05 level
tab $F_{0.05}(2,99) = 3.09$

It is evident from Table-6 that there is significant difference in Persistence factor among top four teams, remaining four teams from 39th Junior National Volleyball Championship and West Zone University Volleyball players of Devi Ahilya University, Indore as the obtained F value of 3.79 which is higher than the tabulated f value of 3.09.

As the F ratio was found to be significant Shheffe’s test of Post – Hoc Comparison was applied to study the significance of difference between ordered paired means and data pertaining to this has been presented in Table –7.

Table 7: Significance of Difference among Ordered Paired Means of Persistence Factor of Male Volleyball Players

Mean Scores					
S. No.	Top 4 Teams	Remaining 4 Teams	Intercollegiate	M.D.	C.D.
01	32.15	30.20	-	1.95*	2.05
02	32.15	-	29.13	3.02*	3.78
03	-	30.20	29.13	1.07*	3.79

*Not Significant at .05 level.

It is obvious from Table –7 that there were not significant difference among the means of top 4 teams, remaining 4 teams and Inter university players as the mean differences of all three groups were lower than the critical difference. As the mean difference of 1.95, 3.02 and 1.07 respectively were lower than critical difference.

Table 8: Analysis Of Variance of Preparation Factor of Collective Efficacy

Source of Variance	df	Sum of Squares	Mean Sum of Squares	F – ratio	tab F
Between Groups	2	1.98	0.99	0.06*	3.09
Within Groups	99	1600.18	16.16		
Total	101	1602.16			

*Not Significant at 0.05 level
tab $F_{0.05}(2,99) = 3.09$

It is evident from Table -8 that there is no significant difference in preparation factor among top four teams, remaining four teams from 39th Junior National Volleyball National Championship and West Zone University Volleyball players of Devi Ahilya University, Indore as the obtained F value of 0.06 which is less than the tabulated F of 3.09.

Table 9: Analysis Of Variance of Unity Factor of Collective Efficacy

Source of Variance	df	Sum of Squares	Mean Sum of Squares	F – ratio	tabF
Between Groups	2	25.70	12.85	0.73*	3.09
Within Groups	99	1737.17	17.55.16		
Total	101	1762.87			

*Not Significant at 0.05 level
tab $F_{0.05}(2,99) = 3.09$

It is evident from Table-9 that there is no significant difference in unity factor among top four teams, remaining four teams from 39th Junior National Volleyball National Championship and West Zone University Volleyball players of Devi Ahilya University, Indore as the obtained F value of 0.73 which is less than the tabulated F value of 3.09.

Table 10: Analysis Of Variance of Collective Efficacy of Volleyball Players of Different Levels of Achievement

Source of Variance	df	Sum of Squares	Mean Sum of Squares	F – ratio	tabF
Between Groups	2	990.55	495.27	1.77*	3.09
Within Groups	99	27700.43	279.80		
Total	101	28690.98			

*Not Significant at 0.05 level
tab $F_{0.05}(2,99) = 3.09$

It is evident from Table -10 that there is no significant difference in collective efficacy factor among top four teams, remaining four teams from 39th Junior National Volleyball National Championship and West Zone University Volleyball players of Devi Ahilya University, Indore as the obtained F value of 1.77 which is less than the tabulated F value of 3.09.

4. Conclusions and recommendations

Within the limits and limitations of the present study the following conclusions is enumerated:

From the present study it is concluded that there is no significance difference in factors of collective efficacies i.e. Ability, Effort, Preparation, Unity and Persistence of 39th Junior National Volleyball top four teams, remaining four teams and West Zone Volleyball players of Devi Ahilya University, Indore.

5. Recommendations

In the light of the conclusions drawn above, the following recommendations are made:

1. It is recommended that this study may be conducted by selecting senior national Volleyball players.
2. This study may be repeated by selecting players of other games.
3. It is recommended that similar study may be undertaken with larger population.
4. It is also recommended that comparative study of collective efficacy may be conducted.
5. It is further recommended that the study of collective efficacy of female Volleyball players can be conduct

6. References

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