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## A comparative study of imagery usage among sportspersons belonging to different Sports

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### Abstract

The purpose of the study was to compare the imagery usage by athletes belonging to different sports. Athletes from three different sports of national level teams were selected in which there were 155 sportspersons (55 players of Baseball, 59 players of Handball, and 41 of Basketball) age ranging from 18 to 28 years. SIQ with a reliability coefficient of 0.89, (C.L. Abma *et al.* 2002) was employed to measure the selected variables. One way ANOVA and post hoc analysis Scheffe's Test was employed. The level of significance was set at 0.05. Significant differences were observed in all the factors of imagery among the sportspersons of various games and sports, as the calculated 'f' value of cognitive specific ( $f= 6.79$ ), cognitive general ( $f= 8.56$ ), Motivational Specific ( $f= 5.79$ ), Motivational general arousal ( $f= 3.77$ ), Motivational general mastery ( $f= 11.43$ ) were found to be greater than the tabulated value i.e. 3.04 at 0.05 level of significance, at 2,152 df.

**Keywords:** imagery, performance

### Introduction

All sportsmen who participate in competitive sports aspire to achieve the highest performance at international level competitions. They work hard for many hours a day, for many years to achieve the distinction. It is not only the physical training but also the mental training which enables them to win in national and international competitions. Mental training plays even more significant role than physical training in competition. Mental training helps in developing concentration ability and eliminating distractions. Mental training also helps in forming the positive thoughts on the other hand helps in curing the negative thoughts into positive and eliminating negative self-suggestions during training and competition. The enhancement of performance in sports has wide interest throughout the world at almost every level of competition. And yet, very little known about how athletes can best prepare themselves mentally to perform close to their skill on a consistent basis. Imagery in sports provides the most comprehensive look at the state of imagery and its uses in sport today. Imagery could be used in sports for performance enhancement, skill learning, and covert behavior modification. It has long been known that almost all elite athletes use imagery and that most sports psychologists apply imagery in working with athletes. Certainly the study taken has to tell about the use of imagery by athletes at national level belonging to sports such as baseball, handball and basketball and helps to identify the effective use of imagery for different sports.

### Methods

Athletes from three different sports of national level teams were selected in which there were 155 sportspersons (55 players of Baseball, 59 players of Handball, and 41 of Basketball) age ranging from 18 to 28 years were purposively selected as the subjects for the study. The sports imagery questionnaire (SIQ) was employed for the purpose of measuring how an athlete uses imagery, developed by (SIQ: Hall. *et al.* 1998).

### Findings

Findings pertaining to sports imagery questionnaire were subjected to Descriptive Analysis, Anova and Scheffes test for post-hoc analysis have been presented from table 1 to 3.

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**Table 1:** Descriptive Statistics of Various Factors of Imagery among Baseball, Handball and Basketball Players

		N	Mean	Std. Deviation	Minimum	Maximum
Cognitive Specific	Baseball	55	4.67	1.28	2	7
	Handball	59	3.9	1.36	1	6.83
	Basketball	41	4.76	1.38	1.33	7
	Total	155	4.4	1.39	1	7
Cognitive General	Baseball	55	4.73	1.21	2.33	6.67
	Handball	59	3.75	1.28	1.5	6
	Basketball	41	4.39	1.35	1.33	7
	Total	155	4.27	1.34	1.33	7
Motivational Specific	Baseball	55	5.1	1.51	1.83	7
	Handball	59	4.18	1.59	1.33	6.83
	Basketball	41	4.91	1.38	1.83	7
	Total	155	4.7	1.56	1.33	7
Motivational General Arousal	Baseball	55	4.61	1.16	2.67	6.83
	Handball	59	4.0	1.31	1.33	6.67
	Basketball	41	4.52	1.22	1.5	7
	Total	155	4.36	1.26	1.33	7
Motivational General Mastery	Baseball	55	5.09	1.4	2.17	7
	Handball	59	3.98	1.38	1.33	6.83
	Basketball	41	5.04	1.32	1.5	7
	Total	155	4.65	1.46	1.33	7

**Table 2:** One Way ANOVA of Different Factors of Imagery among Different Games and Sports

		Sum of squares	Df	Mean square	F	p value
Cognitive Specific	Between Groups	24.29	2	12.145	6.786*	0.002
	Within Groups	272.027	152	1.79		
	Total	296.316	154			
Cognitive General	Between Groups	27.901	2	13.95	8.563*	0
	Within Groups	247.627	152	1.629		
	Total	275.528	154			
Motivational Specific	Between Groups	26.461	2	13.231	5.793*	0.004
	Within Groups	347.172	152	2.284		
	Total	373.633	154			
Motivational General Arousal	Between Groups	11.525	2	5.762	3.767*	0.025
	Within Groups	232.521	152	1.53		
	Total	244.046	154			
Motivational General Mastery	Between Groups	43.172	2	21.586	11.431*	0
	Within Groups	287.032	152	1.888		
	Total	330.204	154			

\*Significant at .05 level; f value required for significance is 3.04 at 2.152df at 0.05 level

**Table 3:** Multiple Comparisons among Different Games and Sport in Various Factors of Imagery

Dependent Variable	(I) Game	(J) Game	Mean Difference (I-J)	Std. Error	p value
Cognitive Specific	Baseball	Handball	.77139	0.25074	0.01
		Basketball	-0.09453	0.27602	0.943
	Handball	Baseball	-0.77139	0.25074	0.01
		Basketball	-0.86592	0.272	0.007
	Basketball	Baseball	0.09453	0.27602	0.943
		Handball	0.86592	0.272	0.007
Cognitive General	Baseball	Handball	.97607	0.23923	0
		Basketball	0.34412	0.26335	0.428
	Handball	Baseball	-0.97607	0.23923	0
		Basketball	-0.63194	0.26335	0.055
	Basketball	Baseball	-0.34412	0.23923	0.428
		Handball	0.63194	0.25951	0.055
Motivational Specific	Baseball	Handball	0.91618	0.26335	0.006
		Basketball	0.18234	0.25951	0.843
	Handball	Baseball	-0.91618	0.28327	0.006
		Basketball	-0.73384	0.31183	0.061
	Basketball	Baseball	-0.18234	0.28327	0.843
		Handball	0.73384	0.30728	0.061
Motivational General Arousal	Baseball	Handball	0.59820	0.23182	0.038
		Basketball	0.09889	0.25519	0.928
	Handball	Baseball	-0.59820	0.23182	0.038
		Basketball	-0.49931	0.25147	0.143
	Basketball	Baseball	-0.09889	0.25519	0.928

<b>Motivational General Mastery</b>	Baseball	Handball	0.49931	0.25147	0.143
		Handball	1.10483	0.25757	0
	Handball	Basketball	0.04316	0.28353	0.988
		Baseball	-1.10483	0.25757	0
	Basketball	Basketball	-1.06166	0.2794	0.001
		Baseball	-0.04316	0.28353	0.988
		Handball	1.06166	0.2794	0.001

## Discussion

The present study reveals that in cognitive specific, significant differences were observed between baseball and handball players and between basketball and handball players. Findings reveal that among all players basketball players were involved most of the time in cognitive specific imagery then followed by baseball and handball players. In the factor of cognitive general i.e. the use of imagery to develop cognitive plans for athletic events, a significant difference was found in the use of cognitive general imagery between baseball and handball players and result showed that baseballers involved most in such of imagery. Athletes use imagery predominantly before competition and also in tough on difficult situation where pressure is very high (Weinberg and Jackson 2003). So, the kind of demand of the game and performance of the sampled baseball team might have been very high; which made them to plan and image their strategy more than their counterparts. In the factors of motivational specific baseballers were involved more than the handballers did. Again in the factor of motivational general arousal baseballers and handballers were found to have significant differences in being involved in this kind of imagery and in this factor too baseballers dominated three other sports. In motivational general, there was a significant difference among all the three other sports. Baseballers claimed the top as they involved in this kind of imagery for the most of the times followed by the handballers and basketballers.

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