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An Outcome of Periodized Small Side Games with and Without Mental Imagery on Playing Ability among Intercollegiate Level Soccer Players

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Abstract

The aim is to identify the outcome of periodized Small Side Games (SSG) with and without mental imagery on playing ability among intercollegiate level soccer players. Forty five players from Chennai region were divided into three groups of fifteen. Their age ranged from 18 from 21 years. Group 1, underwent Small Side Games (SSG) with mental imagery, group 2 underwent Small Side Games (SSG) without mental imagery and group 3 act as control group (they were not exposed to any type of training other than their regular activities). The training lasted up to 6 weeks. All the forty five players were tested on Playing Ability before and after the training period. Playing ability was tested by using Subjective rating consists of 100 marks. The collected data were analyzed using analysis of covariance (ANCOVA) and Scheffe's Post hoc test. Based on the results the following conclusions were drawn 1. Both the experimental training namely underwent Small Side Games (SSG) with mental imagery and underwent Small Side Games (SSG) without mental imagery had significant improvement on playing ability among school level soccer players. 2. There is a significant difference on the improvement on playing ability between both the experimental groups among inter collegiate level soccer players compare to control group.

Keywords: Mental Imagery, Playing Ability, Soccer, Small Side Games (SSG)

1. Introduction

Small side soccer games are played on a smaller field and mainly played both indoors and outdoors. It can be considered a version of 5 a side football. It is a game played between two teams of five players each, one of whom is the goal keeper. There are no limitations for the substitutions.

Soccer can be played in a variety of formats. Most commonly 50x70yrds, 60x40yrds, 40x20yrds directional. It plays a big part in training for soccer. Small sided games are fundamental to preparing soccer teams for games. Coaches use small sided games to train for soccer. It allows a player to touch the ball frequently. It brings a whole team to play for the next level. There is no doubt that when small sided games are employed, the training for soccer can take a leap when done rightly.

2. Mental Imagery

Soccer, like other sports requires not only a high level of physical performance but also psychological training.

Imagery is a Sensation in the absence of the object or situation that usually results in that perception. Imagery has played a significant role in the development of humanity. Imagery has been erroneously equated with visualization, probably because visual external sensations provide approximately 85 percent of the subjective experience of the external world. However, in additions to a mind's eye, a person can also have a mind's car, a mind's body, a mind's tongue and mind's nose.

Mental Imagery as a procedure for mentally representing things that are not physically present. Imagery is a psychological activity which evokes the physical characteristics of an absent object or temporally absent from our perceptual field.

To become proficient in the use of imagery a player has to use it ever day, on the way to training, during training and after training. In every training session, before a player executes any skill or combination of skills, first do it in imagery. See, feel, and experience themselves moving through the actions in their mind. In the competition

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situation one can use this mental imagery technique before the start of the event and imagine themselves performing successfully.

3. Mental Imagery and Sports Performance

Mental Imagery has been shown to influence sports performance on many levels and in many ways. Researchers, consultants, coaches and athletes have found ways in which mental imagery can benefit athletes in training and competition. Mental Imagery can be value in improving physical, technical, tactical, psychological and perceptual aspects of performance[4].

A Fundamental way in which imagery enhances sports performance is by improving the learning of skills and execution in competition. It has been found to provide benefits beyond those accrued through traditional physical practice. In fact, research indicates that combining physical and mental practice offers athletes greater skill acquisition than physical practice alone[1].

4. Hypothesis

It was hypothesized that there may be a significant improvement on Playing ability among inter collegiate level soccer player due periodized small side games with and without mental imagery.

It was hypothesized that there may be a significant improvement on Playing ability between both the experimental groups among inter collegiate level soccer players compare to control group.

5. Experimental Design

Pre and post test randomized group design was applied in this research. Out of 200 Soccer players from the Academy of Sports Club, Chennai, Forty Five Soccer players were selected randomly to participate in this experiment and all the subjects were divided into three groups of fifteen. Their age ranged from 18 from 21 years. Experimental Group I underwent Small Side Games (SSG) with mental imagery, Experimental Group II underwent Small Side Games (SSG) without mental imagery and group 3 act as control group (they were not exposed to any type of training other than their regular activities). All the forty five players were tested on Playing Ability before and after the training period. The Final test scores formed as post test scores of the players.

6. Training Programme

During the training period the experimental groups underwent their respective training programme in addition to their daily routine activities. Experimental group's namely Small Side Games (SSG) with mental imagery and Small Side Games (SSG) without mental imagery underwent their respective experimental training on three alternate days per week for six weeks for three alternate days (Monday, Wednesday, Friday for Group I and Tuesday, Thursday, Saturday for Group II). The duration of training were planned for 90 to 95 minutes that is from 6.25 am to 8.00 am.

Every session starts with Fifteen minutes of specific warming up and conditioning. The subjects were given adequate warming up exercises both with and without ball and stretching exercises to prepare their body for the training programme. The specific training was divided into three sessions along with mental imagery (only for the experimental group I). For Group I, the first session starts with Mental Imagery training for 15 minutes. Second session starts with specific ball drills up to 25 minutes. The Third session contains Small Side Games practice for 25 Minutes. The Small Side Games were and followed by warm down exercises 10 Minutes.

All the players involved in this study were carefully monitored throughout the training programme. The training programme was conducted under the personal supervision of the Investigator.

7. Periodized Small Side Games

After consulting with the experts in the field of soccer, the following Small Side Games (SSG) (Table 1.) were selected for the training programme for both the Experimental Groups.

8. Methods of Data Collection and Analysis

Data collection (Playing Ability) was carried out via subject rating. Subjective rating of player performance involves a panel of three experts in the game of Soccer. The three experts evaluated the player's performance in

Table 1.

Weeks	Experimental Group I				Experimental Group II		
	Mental Imagery	Monday	Wednesday	Friday	Tuesday	Thursday	Saturday
First		3 v 1	2 v 2	5 v 5	3 v 1	2 v 2	5 v 5
Second		2 v 1	4 v 2	3 v 3	2 v 1	4 v 2	3 v 3
Third		4 v 5	3 v 5	3 v 2	4 v 5	3 v 5	3 v 2
Fourth		4 v 4	1 v 1	5 v 6	4 v 4	1 v 1	5 v 6
Fifth		4 v 2	3 v 3	2 v 1	4 v 2	3 v 3	2 v 1
Sixth		2 v 2	4 v 5	3 v 5	2 v 2	4 v 5	3 v 5
					Same Training was drawn for Experimental Group II except Mental Imagery		

Table 2. Computation of analysis of covariance on playing ability

Test	SSG With Mental Imagery Group	SSG Without Mental Imagery Group	Control Group	sv	ss	df	MS	F	TF
Pre Test	69.07	70.02	67.63	B	43.53	2	21.76	0.88	3.22
				W	1042.24	42	24.82		
Post Test	75.34	72.27	66.36	B	624.95	2	312.48	14.93*	3.22
				W	879.06	42	20.93		
Adjusted Means	75.25	71.67	67.04	B	500.02	2	250.01	17.57*	3.23
				W	583.27	42	14.23		
Mean gain	6.27	2.25	1.27						

*Significant at 0.05 level

Table 3. Scheffe's confidence interval test scores on playing ability

SSG With Mental Imagery Group	SSG Without Mental Imagery Group	Control Group	Mean Difference	C.I
75.25	71.67	-	3.58*	3.50
75.25		67.04	8.21*	3.50
	71.67	67.04	4.63*	3.50

*Significant

Soccer for 100 Marks. The framed score sheet has the subjects scores of dribbling/ball control, passing/serving, receiving/first touch, shooting/crossing/striking, speed/first to ball, fitness, defensive technique, game sense/knowledge of rules, positioning/spatial and commitment to game. The average of the three experts rating was taken as a score. All the data was collected after obtaining informed written consent from each player's.

The collected data from the three groups prior to and immediately after the training programme was statistically analyzed with suitable statistical techniques.

Analysis of covariance (ANCOVA) was used to find out the significant difference between experimental groups and control group. When the F-ratio indicated that there are significant differences between means, several tests may be used to identify which means are significantly different from each other. A test used for this purpose is referred to as a Scheffe's post hoc test[2].

9. Computation of Analysis of Covariance and Post Hoc Test

The statistical analysis comparing the initial and final means of Playing Ability in Soccer is presented in Table 2.

10. Results and Discussions

From Table 2 it could be clearly inferred that there was a significant improvement on playing ability due to the small

side games with and without mental imagery as the obtained F value 17.57 were greater than the table value 3.23.

From Table 3 it could be clearly understand that there is a significant difference in the improvement on playing ability when comparing the two experimental groups with the control group where as there is a significant difference between the experimental group I and the experimental group II. The above result may be due to the level of selected players and due to the minimum period of training (6 weeks).

11. Conclusions

- Both the experimental training namely small side games with and without mental imagery had significant improvement on playing ability among the Inter collegiate Soccer players.
- There is a significant difference on the improvement of playing ability between both the experimental groups among the Inter collegiate Soccer players compare to control group.

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