



# COMBINATION OF GAME SPECIFIC EXERCISE AND IMAGERY TRAINING ON SPEED AND AGILITY AMONG HANDBALLERS

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## ABSTRACT

The point of the present study was to find out the combination of game specific exercise and imagery training on speed and agility among handballers. To achieve the purpose of the study men handball players were selected from Government Arts and Science College, (Affiliated to Bharathiar University, Coimbatore) Modakkurichi, Erode, Tamilnadu, India. The subject's age ranges from 19 to 24years. The selected subjects were divided into two equal groups consists of 15 handball men each namely experimental group and control group. The experimental group underwent a game specific exercise and imagery training package programme for twelve weeks. The control group was not taking part in any training during the course of the study. Speed and agility was taken as criterion variable in this study. The selected subjects were tested on speed was measured through 50mts dash and agility was measured shuttle run. Pre-test was taken before the training period and post- test was measured immediately after the twelve-week training period. Statistical technique 't' ratio was used to analyze the means of the pre-test and post test data of experimental group and control group. The results revealed that there was a significant difference found on the criterion variable. The difference is found due to game specific exercise and imagery training package given to the experimental group on speed and agility when compared to control group.

**Keywords:** Game Specific Exercise, Imagery Training, handballers, Speed and agility.

## 1. Introduction

Game specific exercise and imagery training is a program includes fitness and performance training designed specifically for athletic performance enhancement. Training programs for game performance enhancement could include such areas as dribbling, passing, shooting and other than to developing in strength, speed, power, endurance, flexibility, mobility, agility, mental preparedness (including goal setting), sleep, recovery/regeneration techniques and strategies, nutrition, rehabilitation, and injury risk reduction. A general program should include all of these components and a more specific program may only include a few, depending upon the athlete's specific needs (based on strengths, weaknesses and/or imbalances) and the demands of the sport they participate in. Sports performance training is exercising with the specific goal of improving your effectiveness as an athlete in your particular sport. A traditional type of fitness training might include some cardio work, strength training and some stretching for flexibility. Game specific exercise training and imagery training might get someone in general shape and have them improve as an athlete somewhat. In sport, the team training refers the set of physical exercise used to develop either physical or motor fitness aspects of a player. When the training for players at higher level or above the basic level, they have to trained with specific objectives in sport, the training program should designed specifically based on the components that are needed for the particular skill or technique in sport. Thus such type of Specific game exercise training program is a need for the player to excellent in sport. Thus the present study has been carried out to study the combination of game specific exercise and imagery training on speed and agility among handballers.

## 2. METHODOLOGY

### 2.1 Selection of Subjects

The point of the present study was to find out the combination of game specific exercise and imagery training on speed and agility among handballers. To achieve the purpose of the study men handball players were selected from Government Arts and Science College, (Affiliated to Bharathiar University, Coimbatore) Modakkurichi, Erode, Tamilnadu, India.

### 2.2 Selection of Variables

#### Independent Variable

- Game Specific Exercise and Imagery Training

#### Dependent Variables

- Speed
- Agility

### 3. Experimental Design and Implementation

The selected subjects were divided into two equal groups consists of 15 handball men each namely experimental group and control group. The experimental group underwent a game specific exercise and imagery training package programme for twelve weeks. The control group was not taking part in any training during the course of the study. Speed and agility was taken as criterion variable in this study. The selected subjects were tested on speed was measured through 50mts dash and agility was measured shuttle run. Pre-test was taken before the training period and post- test was measured immediately after the twelve-week training period.

### 4. Statistical Technique

The 't' test was used to analysis the significant differences, if any, difference between the groups respectively.

#### 4.1 Level of Significance

The 0.05 level of confidence was fixed to test the level of significance which was considered as an appropriate.

#### 4.2 Analysis of the Data

The significance of the difference among the means of the experimental group was found out by pre-test. The data were analysed and dependent 't' test was used with 0.05 levels as confidence.

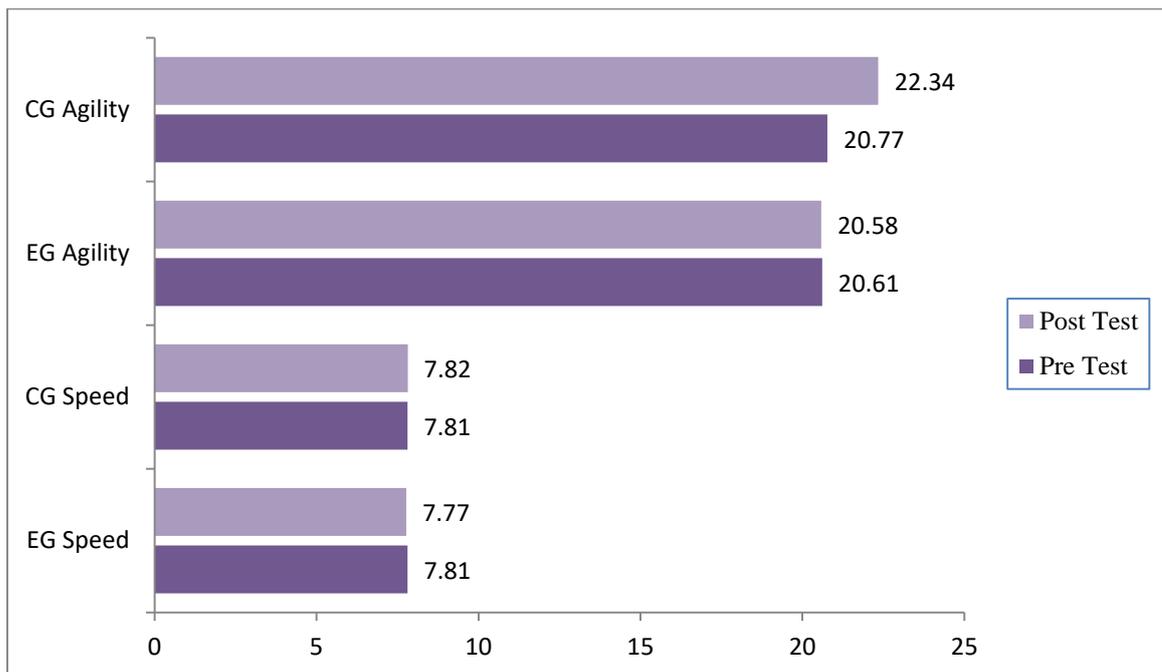
**Table-I**

**Comparison of Mean, and 't'-Values of Speed and Agility between Pre & Post Test among Experimental and Control Groups**

S. No	Physical Fitness Variables	Groups	Test	Mean	't' Values
1.	Speed	Experimental group	Pre Test	7.81	13.43*
			Post Test	7.77	
		Control group	Pre Test	7.81	0.48
			Post Test	7.82	
2.	Agility	Experimental group	Pre Test	20.61	13.16*
			Post Test	20.58	
		Control group	Pre Test	20.77	1.75
			Post Test	22.34	

\*Significant at 0.05 level of confidence

Table-I reveals that the obtained mean values of pre test and post test of experimental group for speed and agility were 7.81 and 7.77, 20.61 and 20.58 respectively; the obtained 't' ratio were 13.43\* and 13.16\* respectively. The tabulated 't' value is 2.14 at 0.05 level of confidence for the degree of freedom 14. The calculated 't' ratio was greater than the table value. It is found to be significant change in speed and agility of the handball players. The obtained mean values of pre test and post test scores of control group were 7.81 and 7.82, 20.77 and 22.34 respectively, the obtained 't' ratio was 0.48 and 1.75. The required table value is 2.14 at 0.05 level of confidence for the degree of freedom 14. The calculated 't' ratio was lesser than the table value. It is found to be insignificant changes in speed and agility of the handball players. The mean values of speed and agility among experimental group and control group are graphically represented in figure-1



**Figure-1: Bar Diagram Showing the Pre Test and Post Test on Speed and Agility of Experimental and Control Groups.**

## 5. DISCUSSION ON FINDINGS

The outcome of the study indicates that the experimental group, namely combined game specific exercise and imagery training group had significantly improved the selected dependent variable, namely speed and agility, when compared to the control group. It is also found that the progress caused by game specific exercise and imagery training when compared to the control group.

It is inferred from the literature and from the result of the present study. That systematically designed training develops dependent variables are very importance quilts for better performance in almost all sports and games. Hence it is concluded that systematically designed training may be programmes of all the discipline in order to achieve maximum given due recognition and implemented properly in the training performance. These findings are in accordance with the findings of **Vallimurugan and Vijay (2021)<sup>1</sup>**, **Senthil Kumaran (2021)<sup>2</sup>**, **Abdul Halik et al (2021)<sup>3</sup>**, **Vallimurugan (2020)<sup>4</sup>** and **Ooraniyan and Senthil Kumaran (2018)<sup>5</sup>**.

## 6. CONCLUSIONS

On the basis of the results obtained the following conclusions are drawn,

- ✚ There was a significant variation between experimental and control group on speed and after the training period.
- ✚ There was a significant improvement in speed and agility. However, the improvement was in favor of experimental group due to twelve weeks of game specific exercise and imagery training.

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