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**Md. Lokmam Saikh**  
Student, Department of  
Physical Education University  
of Kalyani, Kalyani, Nadia,  
West Bengal, India



**Dr. Madhab CH Ghosh**  
Associate Professor,  
Department of Physical  
Education University of  
Kalyani, Kalyani, West  
Bengal, India



**Correspondence**  
**Md. Lokmam Saikh**  
Student, Department of  
Physical Education University  
of Kalyani, Kalyani, Nadia,  
West Bengal, India

## Effect of six weeks recreation games on selected components of physical fitness on school going children

**Md. Lokmam Saikh, Dr. Madhab CH Ghosh**

### Abstract

Recreation game is one of the most important methods for improvement physical fitness. In the present study, the researcher intended to observe the effect of six weeks recreation training on different components of fitness such as speed, agility and expressive power on school going children. For the present study 51 students were selected as subjects among them 30 were experimental group and 21 were control group. All the subjects were gone through age, height and weight as a personal data and vertical jump for measuring leg explosive power. 4 x 10 m shuttle run for measuring agility and 50 yard dash for measuring speed and explosive power. The experimental group was giving six weeks physical training through recreation game. The data were collected for both groups before experiment and after six weeks experiment. After collecting data statistical calculations were done and the following conclusions were drawn – 1. Due to six weeks recreational training explosive power improves the experimental group in case of control group no improvement was observed. 2. Due to six weeks recreational training speed improves the experimental group, in case control groups no improvement was observed. 3. Six weeks recreational training effect was observed in case of agility performance improvement of experimental group; in case of control group no improvement was observed.

**Keywords:** Recreation, Game, fitness, training.

### Introduction

Fitness is not synonymous with health; it plays an essential role in all aspects of health because they are inextricably related. Good health provides a solid foundation on which fitness rests and at the same time fitness provides one of the most important keys to health and living one's life to the fullest. Fitness is the product of exercise, and exercise and training have been shown through research to process important implications in the general health of people. However, fitness is more than a product of exercise. While exercise is necessary to obtain and maintain fitness, there is more involved than physical activity. Various types of recreation games are a type of physical activity. Every person has a different level of physical fitness which may differ time, place of work, situation and environment.

Recreation game is that type of game where number of participant, duration of time, rules and regulation is not bound. The participant will feel free to have it. There is less burden in equipment and there will be lots of fun.

According to Karpovich -“A fitness to perform some specified task requiring muscular effort.”

### Purpose of the Study

- i. The effect of six weeks recreation training on speed ability for children.
- ii. Effect of six weeks recreational training on agility ability for children.
- iii. Effect of six weeks recreational training on explosive power for children.

### Methods

#### Subject

In the present study fifty one (51) class VI standard students of Lasagna High School (H.S.) from Barrackpur, were selected as the subject. Among the subjects thirty (30) were considered as experimental group and twenty one (21) students were considered as control group.

To conduct the study the age, height and weight of the subjects were taken as personal data and the following component of fitness was measured as experimental parameter.

- i. Vertical jump for measuring leg explosive-power.
- ii. 4 x10 m shuttle run for measuring agility.
- iii. 50 yard dash for measuring speed.

**Design of the study**

Before go for experiment all the criteria at the study were measured. Then the subjects were gone through six weeks recreational training and after the competition of training again the same parameter were measured.

**Training protocol**

Each training session was for 50 min duration 5 days training was given in each week, 6 weeks training was given. In each training session was decided in three phases - warming up phase, main training phase and cooling down phase.

- i. **Warming up phase was for 10 minutes and the exercises were** Jogging, slow running, loosening exercise, stride run, stretching, full speed run, and jumping exercise etc.
- ii. **Main training phase was for 35 minutes duration and the exercises were** 1. Recreational Ha-do-do, 2 Recreational Kho-Kho 3 Net and fish 4 Hitting the target5. Recreational competition of frog jump, broad jump, zigzag run, shuttle run, 6. Tug of war etc. In different training days different games were played from the above list.
- iii. **Cooling down phase was for 5 minutes duration and the exercises were** Slow Jogging, loosening exercise and Asanas etc.

**Results and Discussion**

Result of Age, Height and Weight of Experimental Group and Control Group

**Table 1:** Age, Height and Weight of Experimental Group and Control Group

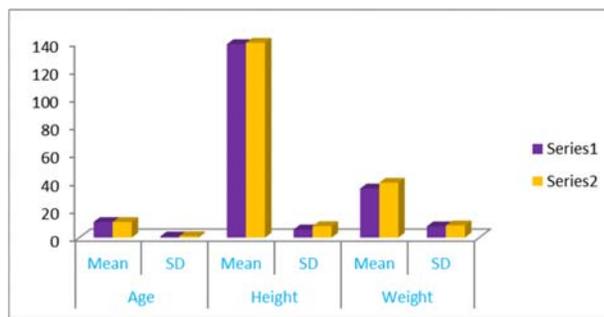
Group	Age		Height		Weight	
	Mean	SD	Mean	SD	Mean	SD
Experimental	11.2	.86	138.77	5.82	35.3	8.08
Control	11.2	1.03	139.8	8.23	39.5	8.69

Form the table -1 it appears that the mean age, height and weight of the experimental group was 11.2 age, 138.77 cm and 35.3 kg respectively and the SD was .86, 5, 82 and 8.08 respectively.

For the control group the mean age, height and weight were 11.2 age, 139.8 cm as 39.5 kg respectively and the SD were 1.02, 8.23 and 8.69 respectively.

From the personal data it appears in age both the groups were same but in weight control group was found little higher value then experimental group.

The personal data of the subjects were presented in graphically in fig no -1



**Fig 1:** Graphical presentation of Mean and SD values of Age, Height and weight (children)

Result of Vertical Jump to Measure Explosive power.

**Table 2:** Vertical jump of experimental group and control group

Group	Mean	SD	SED	t	DF
Experimental Pre-test Vs control group Post-test	24	7.29	2.55	2	39
Experimental Pre-test Vs Experimental Post-test	24	7.29	.21	15.36**	29
control group Pre-test Vs control group Post-test	18.9	7.16	.58	.31	10

At .01 level = 2.72, .05 level = 2.02 \* Significant at .05 level  
 At .01 level = 2.76, .05 level = 2.04 \*\*Significant at .01 level  
 At .01 level = 3.17, .05 level = 2.23

It appears for the table -2; that mean of experimental group and control group in pre-test for vertical jump were 24 cm and 18.9 cm respectively the SD were 7.29 and 7.16 respectively, comparing the mean value at pre-test of experimental group and control group, it was observed that experimental group had higher mean value to observe the significant difference SED and 't' values were calculated found to be 2.55 and 2 respectively. From the 't' value it was observed there were no significant difference. So in pre test both the group were more or less equal.

It also appears for the table-2 that the mean of experimental group pretest and post test for vertical jump were 24 cm and

26.2 cm respectively and the SD was 7.29 and 7.43 respectively. Compare of mean value of experimental group in pre-test and post-test, it was observed experimental group post-test, had higher mean value them pretest. But to observe the significant difference SED and t values were calculated and found to be .21 and 15.38 respectively. From the t value it was observed there were significant difference exist between tests. So due to training a significant difference was observed between pre test and post test.

It also appears for the table-2 that the mean of control group pre-test and post-test for vertical jump were 18.9 cm and 19.09 cm respectively and the SD was 7.16 and 6.4

respectively comparing the mean value of pre-test and post-test for control group. It was observed control group post-test had higher mean value but to observe the significant difference SED and t values were calculated and found to be 0.58 and .31 respectively. For the 't' value it was observed there were no significant difference.

So in the pre-test and post -test both the control group were more or less same.

The vertical jump of the experimental group and control group were also presented in fig no -2

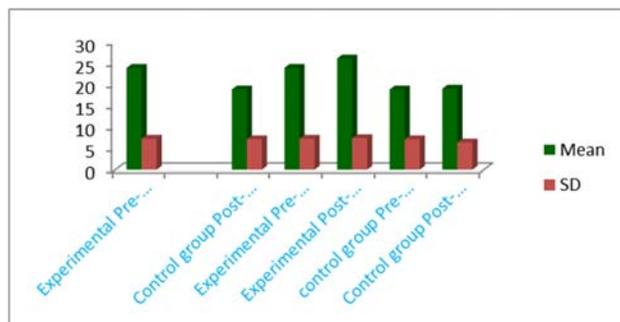


Fig 2: Graphical presentation of Mean and SD values of explosive power of Experimental Group and Control Group of (Children)

So it may be conclude that due to recreation training explosive Structure of the subjects were improved. Result of 50 Yard Dash to Measure Speed.

Table 3: 50 yards dash of experimental group and Control group

Group	Mean	SD	SED	't'	DF
Experimental Pre-test Vs Control group Post-test	10.10 10.12	1.02 .69	0.38	0.052	39
Experimental Pre-test Vs Experimental Post-test	10.10 9.93	1.02 1.65	.08	2.12*	29
Control group Pre-test Vs Control group Post-test	10.12 10.13	.69 .90	0.11	0.73	10

At .01 level = 2.72, .05 level = 2.02 \* Significant at .05 level  
At .01 level = 2.76, .05 level = 2.04 \*\*Significant at .01 level at .01 level = 3.17, .05 level = 2.23 10

It appears for the table-3 that the mean of experimental group and control group in pre-test for 50 yards dash were 10.10 sec and 10.12 sec respectively and the SD were 1.02 and .69 respectively comparing the men value at pre-test for experimental group and control group, it was observed that experimental group had less mean value but to observe the significant different SED and't' value was calculated and found to be .38 and 0.052 respectively. From the't' value it was observed there were no significant difference. So in pre-test both the groups were more or less same.

It also appears for the table - 3 that the mean of experimental group pre-test and post test for 50 yards, dash were 10.10 sec and 9.93 sec respectively at the SD was 1.02 and 1.65 respectively. Comparing the mean value of experimental group in pre-test group and post-test. It was observed experiment group post test had higher mean value then pre test but to observed the significant difference SED and't' value were calculated and found to be .08 and 2.12 respectively. From the't' value, it was observed there were significant difference exist between test. So due to training a

significant difference was observed between pretest and post test.

It also appears for the table-3 that the mean of control group pre-test and post—test for 50 yards dash were 10.12 sec and 10.13 sec respectively and the SD was .69 and .90 respectively comparing the mean value of pre-test and post-test for control group. It was observed of control group post test had higher mean value but to observe the significant difference SED and't' values were calculated and found to be .11 and .73 respectively. For the't' value it was observed there were no significant difference.

So in the pre-test and post-test both the control groups were more or less to be same.

The speed of the experimental group and control group were also presented in fig no - 3

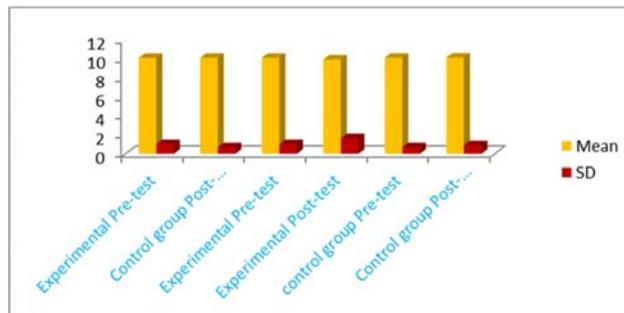


Fig 3: Graphical presentation of Mean and SD values of speed of Experimental Group and Control Group (Children)

So it may be conclude that due to recreational training speed of the subjects were improved.

Result of 4.x 10 m Shuttle Run to Measure Agility.

Table 4: 4 x10 m Shuttle Run of Experimental Group and Control Group

Group	Mean	SD	SED	t	DF
Experimental Pre-test Vs control group Post-test	12.24 12.42	1.24 1.05	0.42	1.14	39
Experimental Pre-test Vs Experimental Post-test	12.9 12.56	1.24 1.19	0.12	2.59*	29
control group Pre-test Vs control group Post-test	12.42 12.46	1.05 1.32	.087	1.04	10

At .01 level = 2.72, .05 level = 2.02 \* Significant at .05 level  
At .01 level = 2.76, .05 level = 2.04 \*\* Significant at .01 level  
At .01 level = 3.17, .05 level = 2.23

It appears for the table-4 that the Mean of experimental group and control group in Pre-test for 40 x 10 m shuttle Run were 12.9 sec and 12.42 sec respectively and the SD were 1.24 and 1.05 respectively. Comparing the Mean value at Pre-test of experimental group and control group, it was observed that experimental group had higher mean value. To observed the significant difference SED and't' value were calculated and found to be .42 and 1.14 respectively. From the't' value it was observed there were no significant difference.

So in Pre-test both the groups were more or less same.

It also appears the table - 4 that the mean of experimental groups pre-test and post-test for 4 x 10 m shuttle run was 12.9 sec and 12.56 sec respectively and the SD was 1.24 and 1.19 respectively comparing the mean value of experimental

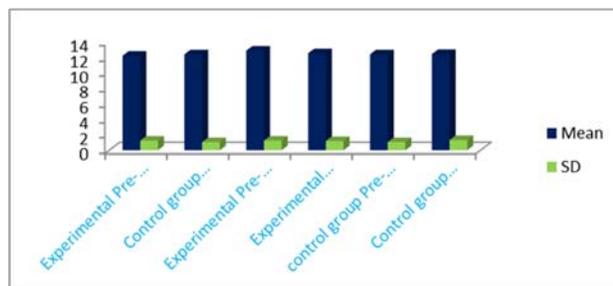
group in pre test and post test, it was observed experimental group post-test had higher mean value than pre test. But to observe the significant difference SED and 't' value were calculated and found to be .12 and 2.59 respectively. From the 't' value, it was observed there were significant difference exist between test.

So, due to training a significant difference was observed between pretest and post test.

It also appears for the table- 4 that the mean of control group pre-test and post-test for 4 x 10 m shuttle run were 12.42 sec and 12.46 sec respectively and the SD was 1.05 and 1.32 respectively comparing the mean value of pre test and post test for control group. It was observed control group post test had higher mean value but to observe the significant difference SED and 't' values were calculated and found to be .087 and 1.04 respectively. For the table value it was observed there were no significant differences.

So, in post-test and pre-test both the control group was more or less same.

The agility of the experimental group and control group were also presented in fig no – 4



**Fig 4:** Graphical Presentation of Mean and SD values of Agility of Experimental Group and Control Group (Children)

So it may be conclude that then to recreation training agility of the subject were improved.

### Conclusion

- i. Due to six weeks recreational training explosive strength improves for the experimental group, in case of control group no improvement was observed.
- ii. Due to six weeks recreational training speed improves for experimental group, in case of control group no improvement was observed.
- iii. Six weeks recreational training effect was observed in case of agility performance improvement for experimental group; in case of control group no improvement was observed.

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