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## Effect of pranayama and Omkara chanting on selected psychological variables among physical education college boys

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### Abstract

The purpose of the present study was to find out the effect of pranayama and omkara chanting on selected psychological variables among physical education college boys. To achieve the purpose of the study fourteen physical education college boys at the age group of 21 to 24 years were selected as subject for the study. Pre test and post test were conducted on the following psychological variables namely concentration, memory and level of fatigue. The experimental training was given for a period six weeks. The collected data were analysed using descriptive statistics and t test. The result of the study shows that there was significant improvement in the selected psychological variables namely concentration, memory and level of fatigue due to six weeks of pranayama and omkara chanting.

**Keywords:** Pranayama, Omkara chanting, psychological variables, physical education

### Introduction

Yoga increases concentration and mental strength and in the Omkar recitation, the first pronunciation A creates the vibrations, which affect on the spinal cord to increase its efficiency. The second pronunciation U creates the vibrations in the throat and affects the Thyroid Glands, while the last pronunciation M, brings the vibrations to the brain, thereby activating the brain centres, as a result of which, the efficiency of a brain increases.

Concentration is a measure of accuracy of work and receiving power is a measure of understanding while memory is a measure of ability to reproduce the knowledge / known things. Off course there are different opinions for the measurement of concentration, memory & receiving power. However, the concentration, memory & level of fatigue can be measured / understood from the Psychology based tests. Based on this hypothesis, the tests, were conducted and the results are discussed

### Materials and Methods

Studies were conducted on 14 girls in the age group of 11 to 14 years and 13 boys in the age group of 10 to 14 years. They were taught the pranayama and Omkar chanting. One Omkar in one exhalation of breath in 10 seconds.

Before starting the class the Psychology based tests for measurement of concentration, memory and level of fatigue were conducted.

The yoga class was conducted from 2/7/11 to 3/8/11 Tuesdays & Fridays in the evening between 4:00 PM to 5:45 PM. The following practices were performed only on twice a week.

- 1) Relaxation 5 Min.
- 2) Pranayama (Deep breathing) 5 Min.
- 3) Omkar Chanting 15 Min.
- 4) Prayer 5 Min.
- 5) Asana 75 Min

The tests for concentration, memory and level of fatigue were conducted before and after completing the yoga class for one month. These tests can be described as follows.

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**1. Test for concentration:** In this test, the students were asked to solve some multiplication (four digits by double figure) in 2 minutes. After completing the assignment, the multiplications were corrected. Results were tabulated as total attempted, correct problems & wrong problems. (Table No. 1) This test was conducted before pranayama & Omkar chanting class and after completing the Omkar chanting class.

**2. Memory Test-**In this test, the different 25 items were kept on the table. All students were asked to observe for 1 minute. After this observation, they were asked to write the names of items within 2 minutes. The observations were tabulated as

the number of items written and correct items written. (Table Number 2)

**3. Test for level of fatigue (Cancel action Test)-**In this test, a paper containing the English alphabets randomly printed was given to the students. The students were asked to cancel the 'A' 'S' & 'H' letters within 2 minutes. They were asked to put vertical line after every minute to know the number of words canceled in every minute.

## Result and Discussion

**Table 1:** Effect Of yoga on "Concentration" (Multiplication test)

Treatment	Attempted	Correct	Wrong	Not attempted
<b>Before</b>				
Males	21	18	3	21
Females	19	18	1	23
Total	20	18	2	22
<b>After</b>				
Males	22	21	1	20
Females	25	21	4	17
Total	24	21	3	18.5

.I) From the concentration test it is observed that the minimum number of problems solved before yoga class were only three, out of which two were correct. But after the class, the minimum numbers of problems solved were nine, out of which 8 were correct. While the maximum number of problems solved before yoga class were 41, all were correct. But after the class, the maximum numbers of problems solved were 42 and all were correct.

The average number of problems solved before class were 20, out of which 17 were 20, out of which 17 were correct. But after the class, the average numbers of problems solved were 24, out of which 21 were correct.

Before yoga Class, the average minimum 5 problems were solved by 2 students, but after the yoga class, the average minimum 10 problems were solved by 3 students. Similarly before yoga class, the average maximum numbers of problems solved were 20 by 11 students but after yoga class, these average maximum numbers of problems solved were 25 by 16 students.

The improvement in ability / accuracy of solving the problems after yoga class, indicates the increase in concentration.

From the observations, it can be seen that the concentration of 70% students has increased significantly

**Table 2:** Effect Of yoga on Memory and Level of Fatigue

Treatment	Items Written	Correct Items	Score (Cancellation)
<b>Before</b>			
Males	14	13	9.7
Females	15	14	15.4
Total	15	14	13.5
<b>After</b>			
Males	16	15	15.1
Females	19	18	22.0
Total	18	17	19.5

II) From the memory test, it is observed that, before yoga class, the average number of items remembered were 15, while after yoga class, the number increased up to 19. The minimum number of items remembered before and after yoga class was 8. But the maximum number of items remembered before yoga class was 21. While after yoga class, this number has increased to 24. Before yoga class the maximum number of item 20 and 21 were remembered by only one student each. But after yoga class, the maximum numbers of item (i.e. 24) were remembered by 4 students. The 20 items were remembered by 11 students and 18 items were remembered by 8 students. Before yoga class, only 4 students have remembered maximum number of items, but after yoga class 17 students have remembered the maximum number of items. Here, we assume that, the 4 students have remembered maximum number of items before yoga class, they are having good memory. So excluding these 4 students, for remaining

23 students, the memory has increased significantly. This means, the ability to reproduce the known things i.e. memory has increased significantly. This means, the ability to reproduce the known things i.e. memory has increased. It is concluded that, the memory has increased to 16% for 66% of students after the yoga class.

III) The average number of marks (words canceled) before yoga class were 13, but after yoga class the marks increased up to 20. The maximum numbers of marks before yoga class were 25, but after the yoga class, the maximum number of marks was 32. From this, it can be concluded that, after yoga class the marks in cancellation test increased, indicating the decrease in level of fatigue. The effect of yoga class was same in all age groups except the old age group. From memory and concentration test, it is seen that, the average and maximum number of marks obtained by physical education college boys. It means that, the effect of yoga class, on physical

education college boys. The mean value and histogram is as shown in Table Number 2 and. The standard statistical test recommended, to test whether the yoga changes the concentration, memory or level of fatigue in case of students is a paired t-test. It was applied for concentration test, memory test and cancellation test. In this case, null hypothesis to be tested is that there is no difference before and after the yoga against the alternative that yoga is effective. The results are as

Test	N	Mean Difference	t-value
Concentration	37	2.87	6.37 **
Memory	37	2.91	5.68 **
Cancellation	37	6.61	8.54 **

### Highly significant

The differences are statistically significant. So the hypothesis, that the yoga affects the concentration, memory and level of fatigue is accepted. The analysis was carried out by using software CST.

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