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## Research Article

### EFFECT OF YOGA PRACTICES ON SELECTED NEUROPSYCHOLOGICAL VARIABLES OF CRICKET PLAYERS

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#### ABSTRACT

The purpose of this study was to see the effect of yoga training on selected neuropsychological variables of cricket players. Only 30 school students whose age range between 12 to 16 years were assigned from VIBGYOR HIGH, Pune. Memory drum test, T-balance test and ruler drop test was taken for checking the memory, balance and reaction time of the present study; Dependent 't' test was applied to investigate the effect of yoga training on selected neuropsychological variables of cricket players. In conclusion there is no significant difference have found in memory, balance and reaction time of cricket players after yoga training.

##### Key Words:

Yoga, Neuropsychology, Variables,  
Cricket, Players.

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#### INTRODUCTION

**Background of the study:** Yoga is an ancient Indian science and way of life that includes the practice of specific postures, regulated breathing and meditation. *Yogasanas* and *pranayamas* are today recognised as techniques that can improve muscle strength, flexibility, blood circulation and oxygen uptake as well as hormone functions at the gross level. Meditation (intrinsic yoga techniques called *Dharana*, *Dhyana* and *Samadhi*) has been described as training in awareness, produces definite changes in perception, attention and cognition. It has been shown that processing of sensory information at the thalamic level is facilitated during the practice of pranayama (breathing exercises) and meditation. Integrated approach of yoga that combines physical postures, pranayama and meditation together with the notional correction based on philosophy of yoga was found to improve both cognitive (visual perception) and motor functions (hand steadiness) in college students following 10 days of yoga practice. This improvement was believed to be due to improved eye hand coordination, attention, concentration and relaxation.

The role of yoga in education from various angles, including the type of education that was being provided to children throughout the world as well as, the different levels of stress, that children have to face in the classroom environment, has

been studied and analyzed. The difficulties, problems, conflicts, distraction and dissipation of their energies were also considered. We are educating our children without taking into consideration the, different angles of their personality. We are cramming their brain and minds with information, without creating any support group outside or the environment, where they can continue to imbibe education. Brain is only the medium through which we educate our mind. The mind is a composition of four different faculties, which has been defined as Manas, Buddhi, Chitta and Ahankarain yogic terminology. The word Manas means to rationalize, to think about something Word, Buddhi means intellect, Chitta is an area of consciousness where impressions are stored. Ahankara is the concept of Ego. In the modern education system we are feeling only one aspect of the mind-Buddhi. We are not dealing with the Manas aspect, which deals with the faculty to know what is right and what is wrong. Neither we are dealing with Chitta, where impressions of knowledge are stored in the form of memory and experience nor are with Ahankara, the Ego., rather, we are cramming Buddhi with information only without boosting up the other aspects of mind therefore, despite all our education efforts. We are still unable to apply it constructively and creatively in our lives.

**The problem and its social relevance:** To understand how yoga produces self-regulation and well-being, proper knowledge

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about yoga is necessary. In ancient yoga scriptures, the yogis are seen sitting in meditation. This meditation or practices of yoga not only help to improve our physical ability but also our cognitive ability. Yoga practices play a great role while giving emphasis on mental power. In today's world physical and mental capabilities both should be well in a human being to get success. To do any kind of work our cognitive ability always been judged. Same in sports also if we r not mentally fit then we cannot play well any game with greatest effort. So relevant knowledge about the benefit of yoga practices on neuropsychological functions is very necessary in today's world to get achievement.

**Statement of the problem:** The purpose of the study was to see the effect of yoga practices on selected neuropsychological variables of cricket players.

## METHOD

**Subjects:** A total number of 30 male school students were selected from VIBGYOR HIGH, Pune and their ages were ranged from 12-16 years.

### Variables of the study

- Memory
- Balance
- Reaction time

**Tool used:** Memory drum test, T-balance test and ruler drop test was taken for checking the memory, balance and reaction time.

**Procedure:** The researcher first selected the 30 cricket players from various schools of Pune city. Then he took memory, balance and reaction time test of each player. After that he had demonstrated the benefit of practicing yoga on neuropsychological variables. Then he had given them training for 6 weeks on selected yogasanas. After 6 weeks researcher again took post test on memory balance and reaction time and had seen the differences.

## RESULT

The detailed analysis of the data is presented in this chapter. The data collected from the subject were arranged in a tabular form and to find out the significant difference. Dependent t-test with level of significance was set at 0.05 were used. The entire analysis of the data was done on the basis of the objective of the study. The data were obtained by administrating under the effect of yoga training on selected neuropsychological variables of cricket players.

**Findings:** The statistical result of effect of yoga training on selected neuropsychological variables of cricket players have been presented in the table below.

**Table 1** Comparison of Memory of cricket players

Test	Mean	SD	't' ratio
Pre-test	4.4	1.24	
Post-test	3.56	0.89	1.51*

\*Level of significance 0.05, df 29(1.70).

The above table shows the mean of memory of cricket players in Pre-test (4.4) and Post-test (3.56), standered deviations (1.24 & 0.89) and the calculated t-ratio 1.51 at the degree of freedom 29(1.70). Since the tabulated t-ratio 1.70, there is no significant

difference have found in between Pre-test and Post-test of memory.

**Table 2** Comparison of Balance of cricket players

Test	Mean	SD	't' ratio
Pre-test	24.95	23.04	
Post-test	28.81	21.05	0.20*

\*Level of significance 0.05, df 29(1.70).

The above table shows the mean of Balance of cricket players in Pre-test (24.95) and Post-test (28.81), standered deviations (23.04 & 21.05) and the calculated t-ratio 0.20 at the degree of freedom 29(1.70). Since the tabulated t-ratio 1.70, there is no significant difference have found in between Pre-test and Post-test of balance.

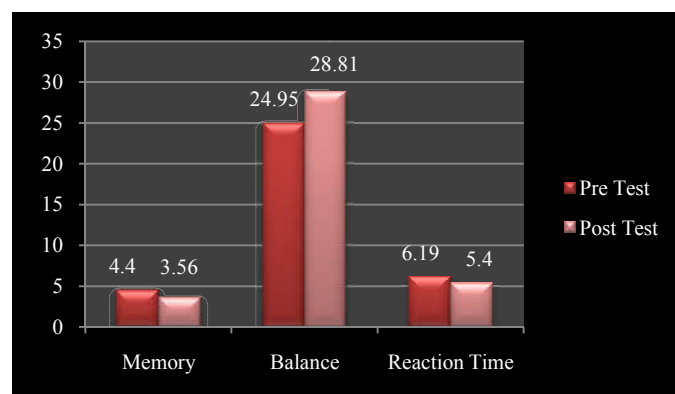
**Table 3** Comparison of Reaction time of cricket players

Test	Mean	SD	't' ratio
Pre-test	6.19	3.38	
Post-test	5.40	2.13	0.07*

\*Level of significance 0.05, df 29(1.70).

The above table shows the mean of Reaction time of cricket players in Pre-test (6.19) and Post-test (5.40), standered deviations (3.38 & 2.13) and the calculated t-ratio 0.07 at the degree of freedom 29(1.70). Since the tabulated t-ratio 1.70, there is no significant difference have found in between Pre-test and Post-test of Reaction time.

### Overall graphical representation of memory, balance & reaction time test (pre test & post test) of cricket players



## DISCUSSION OF FINDINGS

The study took an attempt on the Effect of yoga training on neuropsychological variables of the cricket players to construct the norms for male school students regarding cricket. The main purpose of this study was to check the effect of yoga on selected neuropsychological variables at a limited and certain level.

In this regard scholar had selected 30 male school students in from Vibgyor High, Pune. Selected subjects from 12 to 16 years were chosen from VIBGYOR HIGH, Pune. They have been given training of yoga for 6 weeks. Final result shows that there is no significant deference of memory, balance and reaction time of cricket players.

From the comparison of memory between Pre-test and Post-test of cricket players the researcher found that the tabulated t-ratio (1.70) was greater than calculated t-ratio (1.51), hence there was no significant difference of cricket players in relation to

memory. From the comparison of balance between Pre-test and Post-test of cricket players the researcher found that the tabulated t-ratio (1.70) was greater than calculated t-ratio (0.20), hence there was no significant difference of cricket players in relation to balance. From the comparison of reaction time between Pre-test and Post-test of cricket players the researcher found that the tabulated t-ratio (1.70) was greater than calculated t-ratio (0.07), hence there was no significant difference of cricket players in relation to reaction time.

**Discussion of hypothesis:** On the basis of the findings, the hypotheses stated earlier are discussed as follows:

- There is no significant difference have found in memory of cricket players after yoga training, so hypothesis ( $H_0$ ) is accepted.
- There is no significant difference have found in balance of cricket players after yoga training, so hypothesis ( $H_0$ ) is accepted.
- There is no significant difference have found in reaction time of cricket players after yoga training, so hypothesis ( $H_0$ ) is accepted.

## CONCLUSION

After analysing whole thesis, the researcher had found that there was no significant difference between the variables of cricket players between pre test and post test. The reason behind no significant difference is short period of yoga training. As it was taken only for 6 weeks, no significant difference had found. If the researcher had conducted the yoga training at least 3 months or more than it then there may be chances of significant difference. Another reason behind no significant difference had found is some of the cricketers were earlier attached to yoga. If the cricket players were doing yoga programme first time then there may be chances of significant difference between pre test and post test result.

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