



*International Journal of  
Physical Education and  
Sports Sciences*

*Vol. VII, Issue No. XIII, July-  
2014, ISSN 2231-3745*

**EFFECTS OF TRANSCENDENTAL MEDITATION  
ON THE EYE-HAND COORDINATION OF MALE  
SHOOTERS**

AN  
INTERNATIONALLY  
INDEXED PEER  
REVIEWED &  
REFEREED JOURNAL

# Effects of Transcendental Meditation on the Eye-Hand Coordination of Male Shooters

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**Abstract – The purpose of the study was to determine the effects of Transcendental Meditation on the eye hand coordination of male shooters. Hundred male shooters in the age group of 16 to 35 years were selected as subjects for the study. The subjects were divided in to two equal groups (Fifty each). One group served as Control group and another as the experimental group. The experimental group went under the training for Transcendental Meditation for twelve week duration, for six days in a week for 15 to 20 minutes each. Prior to this training a Pretest was taken. The test was repeated at the end of second, fourth and six, eighth, tenth and finally twelfth week In order to compare the effectiveness of the training program on the performance of eye hand coordination of the male shooters t-test was employed. The level of significance was set at 0.05.**

## INTRODUCTION

The transcendental meditation, as revived by Maharishi, is remarkably simple. It deals directly with the activity of mind thinking but in a way that is mechanical, abstract, and precise rather than intellectual or reflective. It is basically a procedure for experiencing the Mechanics of thinking process in a new direction. Normally one is aware of a thought all at once, in its fully developed form. Obviously, there must be prior stage in the development of thought, it is somehow possible to bring these stages to conscious awareness in a systematic way? The procedure of doing so consists essentially of two elements; a type of thought optimal of this purpose; and a method to experience it at successive prior stages of its development (Note that we are speaking not of the "unconsciousness" as it is usually conceived in psychology, but rather of the actual mechanics of the thinking process. Proponents of the Transcendental Meditation technique state that this simple mental process bring about increased efficiency in action after meditation. The purpose of the study was to see the effect of Transcendental Meditation on the performance of male shooters. The study was delimited to Hundred (100) male shooters in the age group of 16 to 35 years. The study was also delimited to the players of Pistol Shooting and Rifle Shooting of National Level/State Level. The study was further delimited to selected technique of Transcendental Meditation

## METHODOLOGY

**Selection of Subjects:** Hundred male shooters in the age group of 16 to 35 years were selected as subjects for the study. Then the subjects were divided into two equal groups (fifty each). One group served as experimental and other as control groups. Selection of

**Variables:** The shooting requires a high degree of development of psychomotor components especially the eye hand coordination. Thus the eye hand coordination was selected as dependent variables for the study- and the Transcendental Meditation was chosen as independent variable.

**Administration of Test for Eye Hand coordination**

**Purpose:-** To measure the eye hand coordination ability of the subjects.

**Equipment:** Eye hand coordination apparatus.

**Procedure:** Before collecting the data on eye hand coordination all the subjects were explained the test clearly and the necessary amount of practice trial was given to all till they became familiar with procedure of the test. The subject sat on a stool of adjustable height in such a position that he could place his chin on the center point of numbering. The research scholar fixed the clip on a particular place or number and subject was asked to judge the accurate distance by the help of his other hand. In same position watching towards the clip and with the other hand judge the distance. Whether he judged the distance accurate or not .it depends upon his eye hand coordination ability.

**Scoring:-**

Three trials were given to each subject and how accurate he judged the distance. The difference between the actual distance and judged distance showed be minimum for good result.

### Training Programme:

Each subject of experimental group was ready to learn Transcendental Meditation. Teacher gave a particular mantra separately to all the subject of experimental group. Thereafter Teacher briefly introduced experimental group with the introductory and preparatory speech than he conducted PUJA (Worship) of Guru Bhramanand Saraswati, father of Transcendental Meditation technique. Followed by puja all the subjects of experimental group practiced Transcendental Meditation for 20 minutes starting with a silence of half minute and finishing it with a silence of two minute in Lotus like sitting position with close eyes. The subjects of control group were asked to sit quietly eyes closed in Lotus like position. The technique to Transcendental Meditation involves the repetitions of mantra for 15-20 minute each day i.e six days in a week for 12 weeks. The mediator sit in lotus like position with eyes closed. First the initiator seeks out the most comfortable position for himself, one which allows the spine to be in an upright position either in lotus like sitting position on the floor or in a straight backed chair with feel comfortably planted on the ground with eyes closed. One begins with taking a few deep and well-modulated breaths to quiet down and then proceeds to the sub vocal repetitions of the mantra of specific sound.

### Statistical procedure:

In order to compare the effectiveness of the Training program on the performance of eye hand coordination of the male shooters t- test was employed. Also to determine the improvement pattern in both groups as a result of administration of different methods their performance was also checked after every second week i.e the initial test, after second week, after fourth week, after sixth week, after eighth week, after tenth week and finally after twelfth week. The significant difference between control group and experimental group was checked again by using t-test for this purpose also.

## RESULTS OF THE STUDY

### t-Test For The Data On Eye Hand Co Ordination In Experimental Group And Control Group In All Seven Durations.

Frequency of Testing	Mean		Mean difference	Standard Error	t-value
	Experimental	Control			
Start	9.28	8.86	0.42	0.69	0.60
After 2 <sup>nd</sup> week	7.54	8.42	0.88	0.59	1.47
After 4 <sup>th</sup> week	6.44	7.58	1.14	0.49	2.28*
After 6 <sup>th</sup> week	5.78	7.48	1.70	0.39	4.34*
After 8 <sup>th</sup> week	5.14	6.86	1.72	0.33	5.20*
After 10 <sup>th</sup> week	4.44	6.20	1.76	0.34	5.31*
After 12 <sup>th</sup> week	3.68	5.56	1.88	0.33	5.62*

\*Significant at .05 level

Tabulated "t" (98) is 1.98

In the analysis of table -1 shows that the experimental group exhibited insignificant difference in eye hand coordination in the initial stage, and after the expiry of second week. Thereafter it showed the significant improvement in eye hand coordination from the expiry of fourth weeks onward till the end of twelfth week i.e 4<sup>th</sup> week (t=2.28), 6<sup>th</sup> week (t=4.34) 8<sup>th</sup> week (t=5.20), 10<sup>th</sup> week (t=5.13) and 12<sup>th</sup> week (t=5.62) respectively. This was hypothesised that there may not be any significant effect of Transcendental Meditation on the performance of eye hand coordination of the male shooters. On the basis of above finding the hypothesis of the study was rejected as the training program which included the Transcendental Meditation was effective in bringing about significant improvement in the dependent variable i.e. eye hand coordination of the experimental group.

## REFERENCES

### Books

- Gupta, Sunhil Chandra (1983). Psychology Applied to Education and Physical Education (Meertu: Pragati Prakashan, 1983), p.231
- Kamlesh, M.L. (1988). Psychology in Physical education and sports (New Delhi: metropolitan Book company Pvt. Ltd. 1988) pp. 274-275

Matveyev, L. (1981). Fundamental of sports Training (Moscow, Progress Publishers 1981) p.147.

### Journals and Periodicals

- Appelle stuart and Laurence E. Oswald (1974). "Simple Reaction time as a function of Alertness and prior Mental Activity" Perceptual and Motor Skills, 38(June 1974) pp. 1263-1268
- Bhole M.V.M.D. (1974). "Lesson plan to examine our understanding about the technique & effect of Kapal Bhati" Yoga Mimansa Vol. XXVI P. 62-63 Brahamanda and Kubalyanda "Yoga for Health" Yoga Mimansa 1 & 3 1974 p.2A.

Fuster J.M. (1958). "The effects of stimulation of brain stem of tachistopic perception" science, 51 (December 1958) p.150

Ganguly, S.K. Gharote: M.L. and Jolly K. (1989). "immediate effect of kapal Bhati on Cardio-respiratory Endurance" Yoga Mimanasa Vol. XXVIII No. 1 (April 1989)

Gore, M.M. (1978). "Book on Anatomy and Physiology of Logic Practices" pp. 143-144 Williams, L.R.T. "Transcendental Meditation and Mirror Tracing Skills" Perceptual and Motor skills 46 (April 1978) pp. 371-378.

- Gunnere Brog and Sjoberg Hans (1981). "The variations of Hard steadiness with Physical stress" *Journal of Motor Behavior* 13 (June 1981) :110.
- Harret G. Williams (1969). "The effect of Systematic Variations of Spees and Direction of Object, Flight and of skill and Ae classification upon Visual-perceptual Judgment of moving object in three dimensional space" *Completed Research in Health, Physical, Education and Recreation* 2: 244
- Hartogs, R. and D. Klachster (1945). "The clinical Measures of Anxiety " *Psychiatric Quarterly* 19 (jly 1945) pp. 618-635.
- Heimerer, Elsa M. (1989). "A study of the Relationship between Vusual Depth Perception and General Tennis Ability" *Completed Research in health, Physical Education and Research* 2: 16.
- Johanson David W. Orme and Farrow John T. Ed. (1976). *Scientific Research in the Transcendental Meditation Program Vol.I* (Switzerland ; Ikake Lucerne, Maharishi European Research University Press, 1976) pp. 14-145.
- Karen, Klisch (1981). "An investigation of A Relaxation, imagery Techniques on the performance of a motor Skill" *Dissertation Abstract international* 41 (February 1981) 3478-A.
- Reddy, M. keshav and Rao. V. Raghavender : *Scientific Research on the Transcendental Meditation programme . Vol III. p. 346.*
- Sabel, Bernhard A. (1980). "Transcendental Meditation and concentration Ability" *Perceptual and Motor Skills* 50 (June 1980); p.799-802
- Schwartz, Robert Michel (1967). "The Effect of Various Degrees of Muscular work upon Depth Perception, " *Completed Research in Health, physical Education and Recreation* 12 43.
- Shaw Robert and Kobl David ed.: *Scientific Research on the Transcendental Meditation programme. Vol.III.p.309.*
- Suri, Swatmaram Hatha Pradipika, Chapter II sloka 36, Libed, Sloka 37. Suri, Swatmaram Hath Pradipika Chapter I, p. 4
- Warshal, Debra (1980). "Effect of the Transcendental Meditation Technique on normal and Jandrasik Reflex " *Perceptual and Motor Skills* 50 (June 1980) pp. 1103-1106.
- Wenger, M.A. and Bagchi. B.K. (1961). "Studies of Autonomic Functions in Practitioners of Yoga in India " *Behavioral Science* 6 (1961: pp. 321-313)
- William A. Ruffer et. al. (1985). "Comparison for Psychomotor Tasks: Grade and Sex of Secondary school youths" *Perceptual and Motor Skills* 60 (February 1985): 27
- Yogi, Maharishi Mahesh Mahesh Maharshi Yogi on Bhagwat Gita (1971). *A new Translation and Com commentary* (Baltimore, Maryland penguin: maharishi press 1971), p.470

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