

Effect Of Yogic Exercises on Visual Acuity of Male and Female Athletes

DR. SATINDER PAUL

Associate Professor, Akal College of Physical Education, Mastuana Sahib, Sangrur, Punjab

Abstract- *The present study was designed to determine the effect of selected yogic exercises on visual acuity. Total twenty (N= 20) 10 male and 10 female subjects were selected from Colleges affiliated with Punjabi University Patiala. The age group of the subjects from 18-25 years for the present study, further subjects were divided into two group such as Experimental (N=10) in which 5 male and 5 female and Control (N=10) in which 5 male and 5 female. The random sampling use for the selection of subject. To effect of yogic exercises on visual acuity; all eyesight samples were taken by the optometrist & were examined in a fully computerized ophthalmology clinic. The four weeks yogic training protocol was consist following exercises such as Palming, Blinking, Sideways viewing, Front & Sideways viewing, Rotational viewing, Up & down viewing, Near & distant viewing. To examine the study t-test were employed. The level of significance chooses in; to test the hypotheses was 0.05. The results of the study suggest that effect of yogic exercises for four week training better improves the visual acuity in experimental group, whereas on the other hand in the control group subjects who had not participate in these activities do not show any improvement in the visual acuity.*

Index Terms- *Visual Acuity, Yogic Exercises, Males, Females, Right Eye, Left Eye etc.*

I. INTRODUCTION

In vision development from infancy to puberty, there are several unique stages in the development of vision. Social functions develop before motor skills during infancy, when development begins in the middle and goes outward. Following complete vision development, it turns to more skillful visuals like Sports Vision (SV), a new specialty that has garnered

much attention in the last 20 years, particularly from athletes seeking to enhance their visual skills to perform better on the court. Sports vision training (SVT) is now utilized to improve athletes' performance. Sports vision training can help any athlete improve their visual processing and reaction time, regardless of skill level, which are the only factors that distinguish an exceptional performance. The agonists are distinguished by their physical strength, speed, cognitive abilities, and endurance required to play.

The College of Optometrists and many studies have outlined the 17 visual skills/abilities necessary for performing daily tasks including Visual acuity, eye movement control, eye coordination, focusing ability, peripheral vision, depth perception, colour vision, visual memory, visual-spatial skills, visual form perception, visual closure, visual discrimination, visual figure-ground, visual sequential memory, visual synthesis, visual attention, and visual tracking. Wendy Beth Rosen lists 22 visual skills that have an impact on our daily lives in her book the hidden link between vision and learning. In comparison to less accomplished players or non-players, more accomplished players are good enough to identify perceptual cues, efficiently make eye movements, and perform well enough on processing speed tests and concerns, according to several studies. These skills differ with different sports and the particular requirements of every sport. So, the point here is that regular eye examinations or visual skills assessments and their implementation are essential to assessing the visual skills of athletes.

II. METHODOLOGY AND PROCEDURE

To conduct the study, 20 subjects were divided into experimental & control groups equally. The age of the subjects ranged between 18-25 years. All the

samples were selected on random basis. Visual acuity (VA) commonly refers to the clarity of vision. Visual acuity is dependent on optical and neural factors, i.e., (i) the sharpness of the retinal focus within the eye, (ii) the health and functioning of the retina, and (iii) the sensitivity of the interpretative faculty of the brain. The subjects (Male & Female) were selected from Colleges affiliated with Punjabi University, Patiala and the subject was mentioned of tools in duration of 30-45 minutes in peaceful corner of the institution under laboratory like conditions. The four weeks yogic training protocol was consist following exercises such as Palming, Blinking, Sideways viewing, Front & Sideways viewing, Rotational viewing, Up & down viewing, Near & distant viewing etc. Before & after the commencement of exercises protocol, the eyesight of all subjects was measured. All eyesight samples were taken by the optometrist & were examined in a fully computerized ophthalmology clinic.

TABLE NO.1
SHOWING SIGNIFICANT DIFFERENCE
BETWEEN PRE AND POST SCORES OF FOUR
WEEK TRAINING PROGRAM ON RIGHT EYE
(Experimental Group)

Intervention	Mean	SD	't'
Before Training	2.49	1.05	2.76*
After Training	2.03	1.00	

't' (0.05)=1.73

From table no. 1 results found that visual acuity in experimental group in right eye before exercise (Mean= 2.49, SD=1.05) & after exercise was (Mean=2.03, SD=1.00), it is suggested that there was better improvement in visual acuity score in experimental group. The 't' value is 2.76, whether calculated 't' value which is greater than the tabulated 't' value, so that there is a significant difference at 0.05 level.

TABLE NO.2
SHOWING SIGNIFICANT DIFFERENCE
BETWEEN PRE AND POST SCORES OF FOUR
WEEK TRAINING PROGRAM ON RIGHT EYE
(Control Group)

Intervention	Mean	SD	't'
Before Training	0.92	0.42	1.02
After Training	0.87	0.37	

't' (0.05)=1.73

From table no. 2 results indicated that visual acuity in control group in right eye before exercise (Mean= 0.92, SD=0.42) & after exercise was (Mean=0.87, SD=0.37). The 't' value is 1.02, the calculated 't' value which is less than the tabulated value, so that there is insignificant difference between control group.

TABLE NO.3
SHOWING SIGNIFICANT DIFFERENCE
BETWEEN PRE AND POST SCORES OF FOUR
WEEK TRAINING PROGRAM ON LEFT EYE
(Experimental Group)

Intervention	Mean	SD	't'
Before Training	2.20	1.02	2.10*
After Training	1.43	1.20	

't' (0.05)=1.73

From table no. 3 results showed that visual acuity in experimental group in left eye before exercise (Mean= 2.20, SD=1.02) & after exercise was (Mean=1.43, SD=1.20). The 't' value is 2.10, whether tabulated 't' value which is greater than the calculated 't' value, so that there is insignificant difference at 0.05 level.

TABLE NO. 4
SHOWING SIGNIFICANT DIFFERENCE
BETWEEN PRE AND POST SCORES OF FOUR
WEEK TRAINING PROGRAM ON LEFT EYE
(Control Group)

Intervention	Mean	SD	't'
Before Training	0.71	0.40	0.87
After Training	0.68	0.36	

't' (0.05)=1.73

From table no. 4, results found that visual acuity in control group in left eye before exercise (Mean=0.71, SD=0.40) & after exercise was (Mean=0.68, SD=0.36). The 't' value is 0.87, the calculated 't' value which is less than the tabulated 't' value, so that there is insignificant difference between control group.

CONCLUSION

Both athletes and coaches depend heavily on their visual skills to perform at their best. To improve the performance of a players, it is also important to evaluate his visual skills. Different sports require different visual skills, which shows that every sport requires visual analysis which will help us to detect visual disability early which can be enhanced by vision training in different sports.

The results of the study suggest that effect of yogic exercises for four-week training better improves the visual acuity in experimental group, whereas on the other hand in the control group subjects who had not participate in these activities do not show any improvement in the visual acuity.

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