



QUIET EYE TRAINING: EFFECTS ON FREE THROW SHOOTING AND GAZE DURATION VARIABLES AMONG BASKETBALL PLAYERS

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Abstract

The purpose of the study was to find out the Quiet eye training: effects on free throw shooting and gaze duration variables among basketball players. To achieve the purpose of the study twenty men basketball players were selected randomly as subjects from various B.Sc physical education and S.S.Duraisamy Nadar Mariammal College, college students (players) kovilpatti in Thoothukodi district, Tamilnadu, India The subject's age ranged from 18 to 23 years. The subjects were assigned at random into two group of each ten (N=10). Group-I was underwent Quiet eye training group and group-II acted as control group who did not do any training the training period other than their daily schedule the curriculum. The duration of the training period was restricted to six week for five days per week was confined to analysis of co-variance (ANCOVA) was used in this study to find out the Quiet eye training: effects on free throw shooting and gaze duration variables among basketball players. The level of significance was fixed at 0.05 level of confidence which was considered to be the appropriate one of this study when the 'F' ratio was found to be significant. It was concluded that the Quiet eye training group had shown significantly improved in Shooting (basket ball free throw and gaze duration (Hand eye coordination with ball shooting) variables shooting test and gaze duration. However the control group had not shown any significant improvement on any of the selected variables such health fitness variables

Keywords: Quiet eye training, free throw shooting and gaze duration test

INTRODUCTION

The concept of quiet eye originates with the personal experiences of a kinesiologist called Joan Vickers. As a student in sports science – and a keen athlete herself – Vickers always had been interested in how our athletic talents vary so much from day to day.

Quiet eye is a technique reported to improve outcomes in various tasks requiring human visual attention. It has been the subject of several articles in journalistic periodicals, and of scientific studies that evaluate it in relation to activities such as sports and surgical training.

The quiet eye (QE) is a term first proposed by Professor Joan Vickers of Calgary University. It refers a gaze behaviour observed immediately prior to movement in aiming tasks. Vickers defines the **quiet eye** as 'the final fixation on a location that is within 3° of visual angle for a minimum of 100ms' (Vickers, 1996). May 11, 2012

Gaze testing is conducted to evaluate for the presence of nystagmus in the absence of vestibular stimulation. In the ENG test battery, essentially 3 types of information are obtained: presence or absence of spontaneous nystagmus (no task or center gaze); presence, absence, or exacerbation of nystagmus with addition of off-center gaze tasks to stress the system; and fixation suppression of spontaneous nystagmus.

For gaze testing, the patient is instructed to look straight ahead and then fixate on target 30 degrees to the right, left, up, and down. Fixation is maintained for approximately 30 seconds in center gaze and 10 seconds in eccentric gaze

To eyes and how they work. Sight is, arguably, our most important sense. The work of the visual system can be summarized as follows: light enters our pupil and is focused onto the retina at the back of the eye. The retina converts the light signal into electrical impulses. Jan 12, 2018

Eye movements were recorded during the reading of long words which were presented in isolation at their optimal viewing position. Gaze durations were found to vary as a function of the number of lexical candidates consistent with the few letters located around the fixation point with apparently shorter processing times for words likely to initially activate a large set of lexical candidates as compared to few-candidate words. This facilitatory effect was interpreted as resulting from a word-to-letter activation feedback in keeping with the proposals of Andrews (1989-1992)

The game is played between men's teams or between women's teams. Basketball has been played in the Summer Olympic Games since 1936. The shot clock rule started in 1954. The first basketball game took place in 1892, where the court was half the size of what it is today. In 1891 the game was invented by James Naismith.

Purpose of the Study

The purpose of this study was to find out the Quiet eye training: effects on free throw shooting and gaze duration variables among basketball players

METHODOLOGY

The purpose of the study was to find out the Quiet eye training: effects on free throw shooting and gaze duration variables among basketball players. To achieve the purpose of the study twenty basketball players were selected randomly as subjects from B.Sc physical education and St. Johns College of Physical Education; college students (players) Veeravanallur in Tirunelveli district, Tamilnadu, India and their age were ranged from 10 to 14 years. The selected subjects were assigned at random into two groups of ten (N=10) each. Group-I underwent Quiet eye training and Group-II acted as control group who did not attend any special training other than their regular daily schedule curriculum. The duration of the training period was restricted to twelve weeks for three alternative days per week. The pre and post tests data were collected before and after the training period. The dependent variables shooting (basket ball free throw and gaze duration (Hand eye coordination with ball shooting)) were tested by standardized tests items shooting test and gaze duration test respectively.

ANALYSIS OF THE DATA

The Quiet eye training: effects on free throw shooting and gaze duration variables among basketball players. Were analyzed and presented below.

Shooting (Basketball free throw) test

The mean value of t-test on Shooting (Basketball free throw) of pre and post tests scores of Quiet Eye Training and control groups have been analyzed and presented in table 1.

Table 1: The Mean Value of Pre and Post Tests Scores of Experimental and Control Groups on basketball free throw shooting test (score)

Group	Pre Mean	SD	Post Mean	SD	Obtained t-ratio
Quiet Eye Training	5.77	0.97	7.55	1.23	3.39*
Control Group	5.66	0.86	5.77	1.09	0.23

*Significant at .05 level. (The table value required for 0.05 level of significance with df 9 is 2.26)

The table 1 show that the pre-test mean value of Quiet Eye Training and control groups are 5.77 and 5.66 respectively and the post test means are 7.55 and 5.77 respectively. The obtained dependent t-ratio values between the pre and post tests means of Quiet Eye Training and control groups are 3.39 and 0.23 respectively. The table value required for significant difference with df 1 and 9 at 0.05 level is 2.26. Since, the obtained 't' ratio value of Quiet Eye Training group was greater than the table value, it is understood that Quiet Eye Training group had significantly improved on basketball free throw shooting test. However, the control group had not improved

significantly. The 'obtained t' value is less than the table value, as they were not subjected to any specific training.

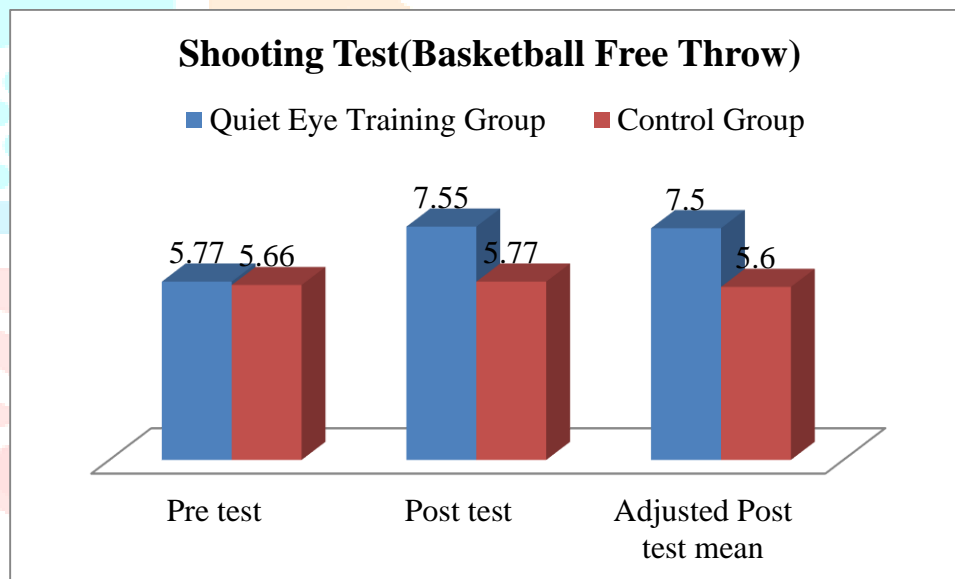
Analysis of covariance (ANCOVA) on free throw shooting test of experimental and control groups have been analyzed and presented in table 2.

Table 2: Analysis of Covariance (ANCOVA) on free throw shooting test of Experimental Group and Control Groups

Adjusted Post Test Means		Source of Variance	Sum of Squares	df	Mean Square	F ratio
Quiet Eye Training Group	Control Group	Between	15.12	1	15.12	16.61*
7.50	5.60	Within	15.48	17	0.91	

*Significant at 0.05 level. (The table value required for significance at 0.05 levels with df 1 and 17 is 4.45)

Table 2 shows that the adjusted post test means value on basketball free throw shooting test of Quiet Eye Training and control groups are 7.50 and 5.60 respectively. The obtained f-ratio 16.61 for adjusted post test mean is greater than the table value 4.45 with df 1 and 17 required for significance at 0.05 level of confidence. The results of the study indicated that there was significant difference exist between the adjusted post test mean of Quiet Eye Training and control groups on free throw shooting.



The bar diagram shows the mean values of pre, post and adjusted post tests on basketball free throw shooting test of Quiet Eye Training and control groups.

GAZE DURATION

The mean value of t-test on gaze duration of pre and post tests scores of Quiet Eye Training and control groups have been analyzed and presented in table 3.

Table 3: The Mean Value of Pre and Post Tests Scores of Experimental and Control Groups on gaze duration (with basketball hand eyes co-ordination test 2 minutes (score)).

Group	Pre Mean	SD	Post Mean	SD	Obtained t-ratio
Quiet Eye Training	11.4	1.17	12.3	1.41	5.01*
Control Group	11.3	1.25	11.4	1.71	0.31

*Significant at .05 level. (The table value required for 0.05 level of significance with df 9 is 2.26)

The table 3 show that the pre-test mean value of Quiet Eye Training and control groups are 11.4 and 11.3 respectively and the post test means are 12.3 and 11.4 respectively. The obtained dependent t-ratio values between the pre and post tests means of Quiet Eye Training and control groups are 5.01 and 0.31 respectively. The table value required for significant difference with df 1 and 9 at 0.05 level is 2.26. Since, the obtained 't' ratio value of Quiet Eye Training group was greater than the table value, it is understood that Quiet Eye Training group

had significantly improved on gaze duration. However, the control group had not improved significantly. The 'obtained t' value is less than the table value, as they were not subjected to any specific training.

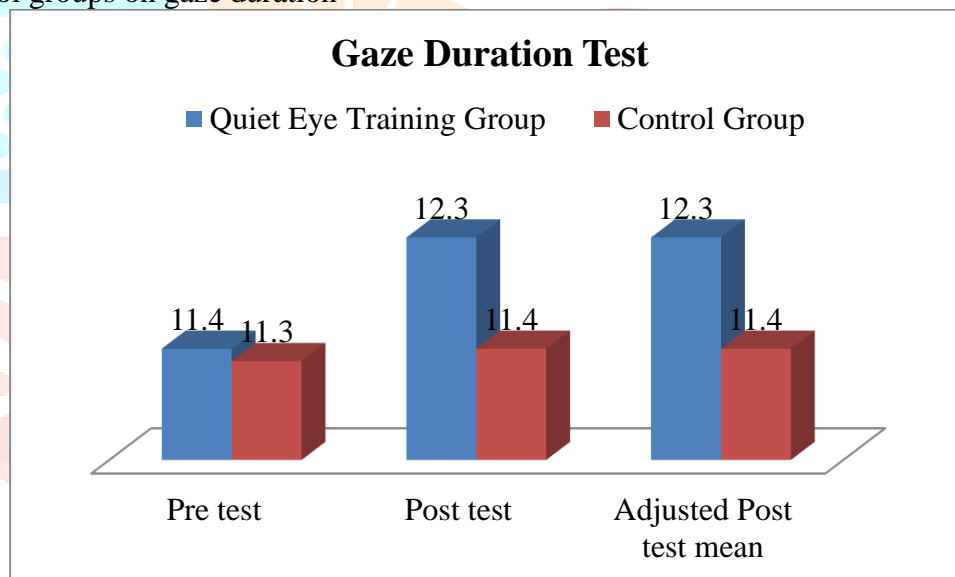
Analysis of covariance (ANCOVA) on hand eye coordination with basketball of experimental and control groups have been analyzed and presented in table 4

Table 4: Analysis of Covariance (ANCOVA) on gaze duration of Experimental Group and Control Groups

Adjusted Post Test Means		Source of Variance	Sum Squares	df	Mean Square	F - ratio
Quiet Eye Training Group	Control Group	Between	3.10	1	3.10	4.62*
12.30	11.40	Within	11.44	17	0.67	

*Significant at 0.05 level. (The table value required for significance at 0.05 levels with df 1 and 17 is 4.45)

Table 4 shows that the adjusted post test mean value on gaze duration test of Quiet Eye Training and control groups are 12.30 and 11.40 respectively. The obtained f- ratio 4.62 for adjusted post test mean is greater than the table value 4.45 with df 1 and 17 required for significance at 0.05 level of confidence. The results of the study indicated that there was significant difference exist between the adjusted post test mean of Quiet Eye Training and control groups on gaze duration



The bar diagram shows the mean values of pre, post and adjusted post tests on gaze duration of Quiet Eye Training and control groups.

VI. CONCLUSION

1. There was significant improvement on Shooting (Basketball free throw) and gaze duration test due to the Quiet Eye Training: among basketball players.
2. However the control group had not shown any significant improvement on any of the selected variables. In the test item were table values.
3. In the present study it was concluded that shooting and gaze duration tests were bio mechanical nuro muscle activity performance to the basketball players game Quiet eye training for isokinetic muscle contraction occurs through the players position of joints in the range of motion and the variables, Quiet eye training effort of the subject high performance in the training quality responses.

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