International Journal of Computational Research and Development (IJCRD)
Impact Factor: 5.015, ISSN (Online): 2456 - 3137
(www.dvpublication.com) Volume 5, Issue 2, 2020

INVESTIGATION OF THE CHANGES ON REACTION TIME DUE TO EFFECT OF SPORTS VISION TRAINING AMONG HOCKEY PLAYERS

Dr. K. Rajeshkumar
Assistant Professor, Department of Physical Education, Tamilnadu Physical Education and Sports University Chennai, Tamilnadu

Cite This Article: Dr. K. Rajeshkumar, "Investigation of the Changes on Reaction Time Due to Effect of Sports Vision Training Among Hockey Players", International Journal of Computational Research and Development, Volume 5, Issue 2, Page Number 24-25, 2020.

Abstract:

The purpose of the study was to find out the effect of sports vision training on reaction time among hockey players. To achieve the purpose of the present study, thirty hockey players from Tamilnadu Physical Education and Sports University, Chennai were selected as subjects at random and their ages ranged from 18 to 25 years. The subjects were divided into two equal groups at random. The subjects were divided into two equal groups of fifteen players each. Group I acted as Experimental Group (sports vision training) and Group II acted as Control Group. The requirement of the experiment procedures, testing as well as exercise schedule was explained to the subjects so as to get full co-operation of the effort required on their part and prior to the administration of the study. The pre test and post test scores were subjected to statistical analysis using Analysis of Covariance (ANCOVA) to find out the significance among the mean differences. In all cases 0.05 level of significance was fixed to test hypotheses. The experimental group had achieved significant improvement on reaction time than the control group.

Key Words: Sports Vision Training, Speed, Balance, Hockey

Introduction:

Visual training is a kind of physical therapy or rehabilitative therapy for the brain and eyes. It is a progressive program, meaning that the beginning exercises are the easiest, gradually becoming more difficult, so that the flexibility and co-ordination of the eye muscles is improved. Students of vision training learn to control, their eye muscles and are able to overcome many kinds of vision impairment which involve the muscles of the eyes. It involves improving visual skills such as eye teaming, depth perception, tracking and vision-body (eye-hand) co-ordination. All practitioners, those who provide vision therapy as well as those who do not should be acknowledgeable about certain aspects of the use of vision in sports performance. Some practitioners offer only elementary visual concentration exercises ("focus on the ball") many players and coaches are aware of and utilize some of the techniques that involve visualization (Gregg, 1987).

Methodology:

The purpose of the study was to find out the effect of sports vision training on reaction time among hockey players. To achieve the purpose of the present study, thirty hockey players from Tamilnadu Physical Education and Sports University, Chennai were selected as subjects at random and their ages ranged from 18 to 25 years. The subjects were divided into two equal groups at random. The subjects were divided into two equal groups of fifteen players each. Group I acted as Experimental Group (sports vision training) and Group II acted as Control Group. The requirement of the experiment procedures, testing as well as exercise schedule was explained to the subjects so as to get full co-operation of the effort required on their part and prior to the administration of the study. The pre test and post test scores were subjected to statistical analysis using Analysis of Covariance (ANCOVA) to find out the significance among the mean differences. In all cases 0.05 level of significance was fixed to test hypotheses.

Results and Discussion:

Table 1: Computation of Mean and Analysis of Covariance of Reaction Time of Experimental and Control Groups

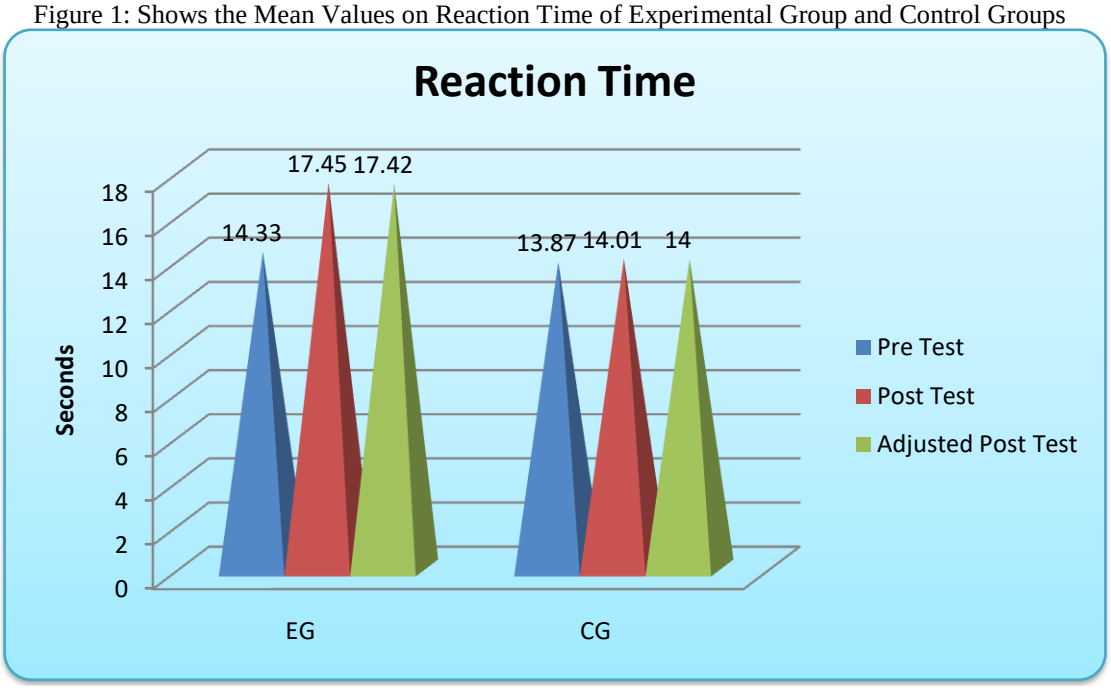
	Experimental Group	Control Group	Source of Variance	Sum of Squares	df	Mean Square	F
Pre Test Mean	0.25	0.26	BG	0.001	1	0.001	2.41
			WG	0.010	28	0.000	
Post Test Mean	0.21	0.25	BG	0.016	1	0.016	49.00*
			WG	0.009	28	0.000	
Adjusted Post Mean	0.21	0.25	BG	0.012	1	0.012	43.41*
			WG	.008	27	0.000	

* Significant at 0.05 level Table value for df 1 and 28 was 4.20, 1 and 27 was 4.21

The above table indicates the adjusted mean value of reaction time of experimental and control groups were 0.21 and 0.25 respectively. The obtained F-ratio of 43.41 for adjusted mean was greater than the table value 4.21 for the degrees of freedom 1 and 27 required for significance at 0.05 level of confidence. The result of the study indicates that there was a significant difference among experimental and control groups on reaction time.

The above table also indicates that both pre and post test means of experimental and control groups differ significantly. The pre, post and adjusted post mean values of reaction time of both experimental and control groups are graphically represented in the figure 1.

Figure 1: Shows the Mean Values on Reaction Time of Experimental Group and Control Groups



Conclusion:

The experimental group had achieved significant improvement on reaction time than the control group.

References:

1. Bender, R.S (1984). The effects a vision training program has on the ball – handling skills of children with visually – related learning disabilities. Completed research, 27. 178.
2. Beverley C A, Bath P A, & Booth A (2004). Health information needs of visually impaired people: a systematic review of literature. School of Health and related research. Health & social care in the community, 12:1, 1-24.
3. Bonsel, S, K., Feltgen, N., Burau, H., Hansen, L. & Bach, M. (2006). Visual acuities "hand motion "and "counting fingers" can be quantified with the Frieburg visual acuity test. Invest Ophthalmol Vis Sci. 47(3):1236-40.
4. Dureha, K. Dilip and Akhil, Mehrotra (2003). Teaching & Coaching Hockey. New Delhi: Paperbacks.
5. Dutta Ray (1988). Yogic Exercises: Physiologic and Psychic Processes, Jaypee Brothers Medical Publishers.
6. Field, A. (2005). Discovering Statistics Using SPSS. London: Sage Publications.
7. Gregg James R (1987) Vision and Sports - An Introduction. Butterworth Publishers, Maryland, USA.