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Effect of specific skill training on with and without visual aids of college level male handball players

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Abstract
The purpose of the study was to find out effect of specific skill training on with and without visual aids on selected skill performance variables of college level male Handball players. To achieve this purpose of study thirty-six players of college level Handball players was selected from Sri Ramakrishna Mission Vidyalaya Maruthi College of physical education, Ramakrishna Mission Vivekananda University Faculty of General and Adapted Physical Education and Yoga and Ramakrishna Mission Vidyalaya College of arts and science, Periyanaicken Palayam Coimbatore was selected randomly as subject. The age group of the subject ranged between 17 to 25 years. The subject was divided in to three equal groups, namely experimental groups and control group. Experimental group I underwent with the help of visual aids training programme (VAT), Experimental group II underwent without the help of visual aids training programme (NVAT) and Experimental group III control group was not exposed to any specific training apart from their regular routine (COE). The selected criterion variable namely dribbling and Jump shot was assessed by Makas H. Lakde for a period of twelve weeks. All the subjects was tested on selected variables, before and after the treatment. The collected data from three groups prior to and after the 12 weeks training programme on selected criterion variable was statistically analysed by using dependent't' test and analysis of covariance ANCOVA. The scheffe's test was used as post-hoc to determine which of the paired means differed significantly where the difference in adjusted post-test means resided in univariate ANCOVA among three groups. It was found that there was a significant improvement and significant different exist due to the effect of specific skill training on with and without visual aids on selected skill performance variables of college level male Handball players.

Keywords: With visual aids, without visual aids, dribbling and jump shot

Introduction
Various areas of the brain work together in a multitude of ways in order to produce the images that we see with our eyes and that are encoded by our brains. The basis of this work takes place in the visual cortex of the brain. The visual cortex is located in the occipital lobe of the brain and harbors many other structures that aid in visual recognition, categorization, and learning. One of the first things the brain must do when acquiring new visual information is recognize the incoming material. Brain areas involved in recognition are the inferior temporal cortex, the superior parietal cortex, and the cerebellum. During tasks of recognition, there is increased activation in the left inferior temporal cortex and decreased activation in the right superior parietal cortex. Recognition is aided by neural plasticity, or the brain's ability to reshape itself based on new information (Bahil & La Ritz, 1984).
There various equipment available to train the players visual skills. Though these equipment's can help the player to improve the visual abilities of a sports person, generally picture, display card, individual demonstration and videos are the major training aids being used. Video is the good way of showing the trainees to perform the tasks. They can present factual and conceptual information with visual illustrations, animations and graphics. This type of media is portable and can be made available to the trainees anywhere and at any time.

Methodology
To achieve this purpose of study thirty-six players of college level Handball players were selected from Sri Ramakrishna Mission Vidyalaya Maruthi College of physical education, Ramakrishna Mission Vivekananda University Faculty of General and Adapted Physical

Education and Yoga and Ramakrishna Mission Vidyalaya College of arts and science, Periyanaicken Palayam, Coimbatore were selected randomly as subject. The age group of the subject ranged between 17 to 25 years. The subject was divided in to three equal groups, namely with visual aids training group (n=12), without visual aids training group (n=12) and control group (n=12). Visual aids training and without visual aids training was selected as independent variable and selected skill were selected as dependent variables. The dependent variables were assessed by Makas H. Lakde. The All the subjects were tested on selected variables, before and after the treatment. Experimental group I underwent with the help of visual aids training programme (VAT), Experimental group II underwent without the help of visual aids training programme (NVAT) and Experimental group III control group was not exposed to any specific training apart from their regular routine (COE). The collected data from three groups prior to and after the 12 weeks training programme on selected criterion variable were statistically analysed by using dependent't' test and analysis of covariance ANCOVA. The scheffe's test was used as post-hoc to determine which of the paired means differed significantly where the difference in adjusted post-test means resided in univariate ANCOVA among three groups. The level of confidence was fixed at 0.05 level for all the cases to find out the significance.

Analysis of the Data

Dribbling

The analysis of covariance on dribbling of the pre and Post-test scores of visual aids training group, non-visual aids training group and control group have been analysed and presented in table 1.

Table 1: Analysis of Covariance on Dribbling Of Specific Skills with Visual Aids Training Group Specific Skills without Visual Aids Group and Control Group

Test	Experimental Group-'A'	Experimental Group-'B'	Control Group	Source of variance	Sum of square	df	Mean square	'F' ratio
Pre-test mean	8.83	8.68	8.51	B.M	0.60	2	0.30	0.97
				W.G	10.21	33	0.31	
Post-test mean	7.55	7.97	8.46	B.M	4.96	2	2.48	9.13*
				W.G	8.96	33	0.27	
Adjusted Post-test mean	7.57	7.97	8.44	B.M	4.28	2	2.14	7.77*
				W.G	8.80	32	0.27	

B.M. –Between means W.G. – Within groups

*Significant at 0.05 level of confidence.

(The table value required for significance at 0.05 level of confidence with df 2 and 33 and 2 and 32 were 2.87 respectively).

The table 1 shows that the adjusted post-test means on dribbling of the specific skill with visual aids training group, specific skill without visual aids training group and control group are 7.55, 7.97 and 8.44 respectively. The obtained 'F' ratio value of 9.13 for adjusted post-test score is greater than the required table value of 2.87 for df 2 and 33 at 0.05 level of confidence.

The result of the study indicated that there was a significant difference between the adjusted post-test mean of visual aids training group, non-visual training group and control group on dribbling.

Since, three groups were compared, whenever the obtained 'F' ratio for adjusted Post-test was found to be significant, the scheffe's test to find out the paired mean difference and it was presented in the table 2.

Table 2: Scheffe's Post Hoc Test for the Difference between Adjusted Post-Test Mean of Dribbling

Adjusted post-test means			Mean Difference	Required C.I
Experimental Group-'A' (Specific Skill with visual aids Training group)	Experimental Group-'B' (Specific Skill without visual aids Training group)	Control Group		
7.57	7.97	-	0.40	0.47
7.57	-	8.44	0.87*	0.47
-	7.97	8.44	0.47*	0.47

* Significant at 0.05 level of confidence.

Table – 2 show that the adjusted post-test mean difference in dribbling between specific skill with visual aids training group and specific skill without visual aids training group, specific skill with visual aids training group and control group, specific skill without visual aids training group and control group are 0.87 and 0.47, which were greater that the confidence interval value of 0.47 at 0.05 level of confidence.

It may be concluded from the results of the study that specific skill with visual aids training group and specific skill training without visual aids training group have significantly improved in the dribbling when compared with the control group. Moreover, the specific skill with visual aids training has more improvement than the specific skill without visual aids training group. The mean value on dribbling of specific skill with visual aids training group, specific skill without visual aids training group and control group are graphically represented in figure – 1.

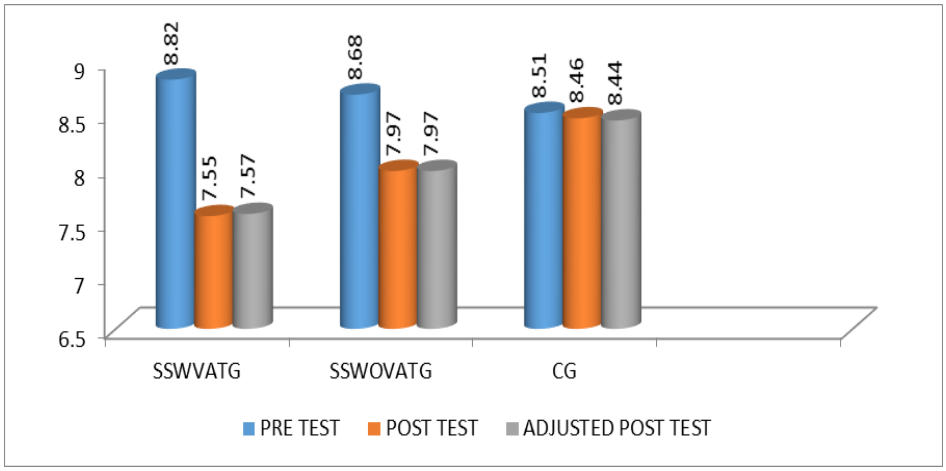

Fig 1: Mean Value of Specific Skill with Visual Adis Training, Specific Skill without Visual Adis Training and Control Group on Dribbling Of College Level Handball Players.

Jump Shot

The analysis of covariance on jump shot of the pre and post test scores of visual aids training group, non-visual aids training group and control group have been analysed and presented in table 3.

Table 3: Analysis Of Covariance On Jump Shot Of Specific Skills With Visual Aids Training Group Specific Skills Without Visual Aids Group And Control Group

Test	Experimental Group-'A'	Experimental Group-'B'	Control Group	Source of variance	Sum of square	Df	Mean square	'F' ratio
Pre-test mean	34.50	34.33	34.67	B.M	0.67	2	0.33	0.02
				W.G	578.33	33	17.52	
Post-test mean	43.67	40.67	34.83	B.M	484.22	2	242.11	22.38*
				W.G	357.00	33	10.81	
Adjusted post-test mean	43.67	40.68	34.81	B.M	486.11	2	243.06	22.08*
				W.G	352.20	32	11.00	

B.M. –Between means W.G. – Within groups
*Significant at 0.05 level of confidence.
(The table value required for significance at 0.05 level of confidence with df 2 and 33 and 2 and 32 were 2.87 respectively).

The table 3 shows that the adjusted post-test means on jump shot of the specific skill with visual aids training group, specific skill without visual aids training group and control group are 43.67, 40.68 and 34.81 respectively. The obtained 'F' ratio value of 9.13 for adjusted post-test score is greater than the required table value of 2.87 for df 2 and 32 at 0.05 level of confidence.

The result of the study indicated that there was a significant difference between the adjusted post-test mean of visual aids training group, non-visual training group and control group on jump shot.

Since, three groups were compared, whenever the obtained 'F' ratio for adjusted post test was found to be significant, the scheffe's test to find out the paired mean difference and it was presented in the table 4.

Table 4: Scheffe's Post Hoc Test for the Difference between Adjusted Post-Test Mean of Jump Shot

Adjusted post-test means			Mean Difference	Required C.I
Experimental Group-'A' (Specific Skill with visual aids Training group)	Experimental Group-'B' (Specific Skill without visual aids Training group)	Control group		
43.67	40.68	-	2.99	3.17
43.67	-	34.81	8.86*	3.17
-	40.68	34.81	5.87*	3.17

*significant at 0.05 level of confidence.

Table – 4 show that the adjusted post-test mean difference in jump shot between specific skill with visual aids training group and specific skill without visual aids training group, specific skill with visual aids training group and control group, specific skill without visual aids training group and control group are 8.86 and 5.87 which were greater that the confidence interval value of 3.17 at 0.05 level of confidence.

It may be concluded from the results of the study that specific skill with visual aids training group and specific skill training without visual aids training group have significantly improved in the jump shot when compared with the control group. Moreover, the specific skill with visual aids training has more improvement than the specific skill without visual aids training group.

The mean value on jump shot of specific skill with visual aids training group, specific skill without visual aids training group and control group are graphically represented in figure – 2.

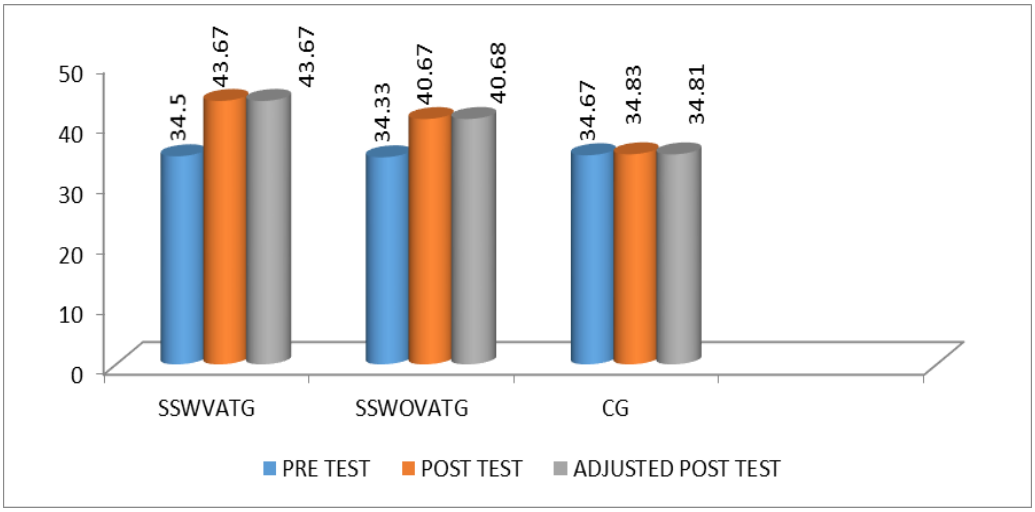

Fig 2: Mean Value of Specific Skill with Visual Adis Training, Specific Skill without Visual Adis Training and Control Group on Jump Shot of College Level Handball Players

Discussion and Findings

The results of the study indicated that the experimental group's namely specific skill training with visual aid training group had significantly influenced the skill performance variables

It was found that visual aids groups were better improvement when compare to the other two groups such as non-visual groups and control group

These finding are consistent with the literature reviewed by Elizabeth, Bressan, S. (2003) the findings of the study is in par with the literatures that effects of visual skills training programme, vision coaching programme and sports vision dynamics programme helps to improve performance of a fundamental skills.

Elizabeth S. Bressan (2003) conducted a study on the effects of visual skills training, vision coaching and sports vision dynamics on the performance of a sport skill. The study was conducted to determine the effectiveness of three different approaches to improve sports performance through improvements in sports vision: (1) a visual skills training programme, (2) traditional vision coaching sessions, and (3) a multi-disciplinary approach identified as sports vision dynamics. These results indicated that sports vision dynamics appear to be the most effective approach to help players to maximise the use of vision during sport performance. Research had proved strong evidence that the combination training leads to a greater improvement in fundamental skill performance of the male football players.

Conclusions

The specific skill training with visual aids training group had shown significant improvement in all the selected skill performance variables of college level male Handball players.

The specific skill training without visual aids training group had shown significant improvement in all the selected skill performance variables of college level male Handball players.

The control group had not shown significant changes in all the selected skill performance variables of college level male Handball players.

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