International Journal of Physical Education, Vol. 4 No. 1 (April, 2011) : 5-7

Research Paper :

Effect of different training methods on forehand drive in Table-tennis using special fabricated gadget (Robert machine)

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Received : *June, 2010;* **Accepted :** *October, 2010*

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ABSTRACT

The purpose of the study was to determine the effect of different training methods on forehand drive in Table-tennis using special Fabricated gadget. Forty male students from School of Physical Education, Devi Ahilya University, Indore who attended the coaching sessions from 15th March to 27th April 2010 served as subjects for this study. The subjects, who knew the basic skills of Table-tennis were selected randomly and assigned to four groups. Group A was Fabricated gadget practice group, Group B was Fabricated gadget and on Table practice group, Group C was on table practice group, and Group D acted as controlled group. Three qualified experts in Table-tennis judged the effectiveness of Forehand drive of the subjects. Fabricated gadget and on Table practice group was effective than the other training programmes. All the training groups improved significantly in forehand drive in Table-tennis after practicing for 40 training sessions.

Yadav, S.K. (2011). Effect of different training methods on forehand drive in Table-tennis using special fabricated gadget (Robert machine). *Internat. J. Phy. Edu.*, **4** (1) : 5-7.

Key words : Special fabricated gadget, Forehand drive, Training

Training of sports is conceived as the organization and conduct of learning experiences in a particular sport. Training serves to bring the pupil in to a learning environment and to enhance the efficiency of learning process (Kamlesh, 1994). Table-tennis truly is a sport for the masses and its widespread adoption around the world is a testament for its versatility (Barness, 1972). Drives, a light topspin stroke that produces a low-ball trajectory, are the primary offensive strokes in Table-tennis. A good Table-tennis, fabricated gadget can be the key to the success, provides with most of the practice situations encountered and helps to improve the game rapidly.

METHODOLOGY

Forty male students from the School of Physical Education, Devi Ahilya University, Indore who attended the coaching sessions in Table-tennis, held at School of Physical Education gymnasium hall from 15th March to 27th April 2010, served as subjects for this study.

The present syudy was conducted on a forty training session programme to know the effect of training on forehand drive in Table-tennis. The subjects were randomly selected and divided into four groups of ten subjects in each group by lot.

The subjects were equally assigned into three experimental groups and one controlled group with ten subjects in each group. The operation of the machine was controlled by the investigator, at speed 4 and frequency of the balls served at 2 was adjusted with touch key on control box, 1 is lowest stage (30 balls/min), and 9 is the fastest stage (85 balls/min). The group A practiced on Fabricated gadget, Group B practiced with Fabricated gadget and on table, Group C practiced on Table, and Group D served as controlled group for forty training sessions. The training for Forehand drive in Table-tennis was imparted to Group A, B and C.

OBSERVATIONS AND DISCUSSION

In order to find out the comparative effects of the three different experimental training programmes and the controlled group, analysis of covariance was applied and the results pertaining to this has been presented in Table 1 and 2.

Table 1 of analysis of covariance for the experimental groups and the controlled group on forehand drive in Table-tennis reveals F-ratio of 3.977 for post-test means. The F-ratio was significant as it was greater than the F-ratio of 2.87 required for significance at 0.05 level. The F-ratio for the adjusted final means also indicated a significant value of 5.17, thereby indicating

Table 1: Analysis of covariance for three experimental and controlled group on forehand drive in Table-tennis

	Group Means								
	A	B	C	D	SV	d.f.	SS	MSS	F- ratio
Pre-test μ	21.6	21.3	22.2	21.7	B	3	4.2	1.4	0.198
					W	36	254.2	7.06	
Post-test μ	31.3	35.8	37.2	33.8	B	3	105.3	31.5	3.977*
					W	36	317.7	8.825	
Adj. Post-test μ	33.16	36.06	36.88	33.8	B	3	94.40	31.47	5.17*
					W	35	213.18	6.09	

* indicates significance of value at P=0.05 level $F_{0.05}(3, 35) = 2.87$ $F_{0.05}(3, 36) = 2.87$

Table 2: Paired adjusted final means and difference between means on fore hand drive in Table-tennis

Sr. No.	Group means				Mean diff.	C.D.
	Group A	Group B	Group C	Group D		
1.	33.16	36.88	-	-	3.72*	2.23
2.	33.16	-	36.06	-	2.90*	2.23
3.	33.16	-	-	33.80	0.64	2.23
4.	-	36.88	36.06	-	0.82	2.23
5.	-	36.88	-	33.80	3.08*	2.23
6.	-	-	36.06	33.80	2.26*	2.23

significant differences in the pre to post means among the experimental groups and controlled group. In order to find out which of the groups differed significantly, the L.S.D. post-hoc test was applied and the results pertaining to it are shown in Table 2.

Table 2 of difference between paired adjusted final means of the experimental and control groups shows that the mean differences of the forehand drive in Table-tennis Fabricated gadget Practice group and Fabricated gadget and on Table practice group, (3.72), Fabricated gadget Practice group and on Table practice group (2.900), Fabricated gadget and on Table practice group and controlled group (3.08). On table practice group and controlled group (2.26) were significant as they were greater than the critical difference value of 2.23 required for significance.

The representation of the paired adjusted final means of the three experimental groups and the controlled group on forehand drive in Table-tennis has been shown in Fig. 1.

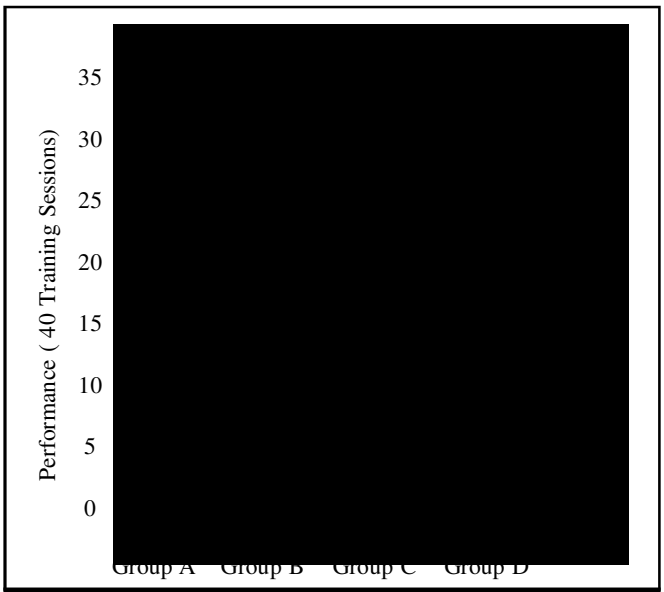

Fig. 1: Forehand drive performance

The results indicated the Fabricated gadget and on Table practice group to be superior to all other experimental groups and the controlled group. Among all the training methods, the training with Fabricated gadget and on Table practice group was also significantly better than the controlled group and Fabricated gadget practice group. The training programme followed with the Fabricated gadget with on Table practice group was monitored with skill development training method for forehand drive in Table-tennis and hence this experimental group proved to be superior to the other experimental and controlled group except with on Table practice group.

Conclusion:

On the basis of the findings of the present study, the following conclusions were made:

– The forty training sessions with fabricated gadget and on Table Practice Group significantly improved the forehand drive of the subjects.

– The fabricated gadget and on table practice group proved better than with the fabricated gadget practice group and the controlled group.

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