iJRASET
International Journal For Research in Applied Science and Engineering Technology

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 6 **Issue:** IV **Month of publication:** April 2018

DOI: http://doi.org/10.22214/ijraset.2018.4605

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International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 6.887
Volume 6 Issue IV, April 2018- Available at www.ijraset.com

Effect of Specific Drills through Table Tennis Ball Feeding Machine on Selected Skill Performance Variables of Non- Table Tennis Players

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Abstract: ***The purpose of the study was to determine the effect of specific drills through table tennis ball feeding machine on selected skill performance variables of non- table tennis players. To achieve the purpose 30 men non-table tennis players from faculty of general and adapted physical education and yoga, Ramakrishna Mission Vivekananda University and Maruthi college of physical education, Coimbatore. The age of the subject's was ranged from 23 to 28 years. the selected subjects were considered as two groups in that fifteen subjects were acted as control group and no training was given this group and another fifteen subjects were acted as experimental group this group was undergone the training. The following criterion variables were selected for the study namely forehand drive and backhand drive. The training period would be the six weeks except Saturday and Sunday of every week. Data were collected from each subject before and after the six weeks of training. The collected data were statistically analyzed by using 'ANCOVA' ratio. It was found that the skill performance variables namely forehand drive and backhand drive are significantly improved due to the treatment of specific drills through table tennis ball feeding machine.***
Key Words: Table tennis ball feeding machine, Forehand drive and Backhand drive.

I. INTRODUCTION

The game originated in England during the 1880s, where it was played among the upper-class as an after-dinner parlous game. It has been suggested that the game was first developed by British military officers in India or South Africa who brought it back with them. A row of books were stood up along the center of the table as a net, two more books served as rackets and were used to continuously hit a golf-ball from one end of the table to the other.

Alternatively table tennis was played with paddles made of cigar box lids and balls made of champagne corks. The popularity of the game led game manufacturers to sell equipment commercially. Early rackets were often pieces of parchment stretched upon a frame, and the sound generated in play gave the game its first nicknames of "wiff-waff" and "ping-pong". A number of sources indicate that the game was first brought to the attention of Hamley's of Regent Street under the name "Gossima" (Hamilton, Fiona 2 September 2008).

" then came to be used for the game played by the rather expensive Jaques's equipment, with other manufacturers calling it table tennis. A similar situation arose in the United States, where Jaques sold the rights to the "ping-pong" name to Parker Brothers. Parker Brothers then enforced their trademark for the term in the 1920s making the various associations change their names to "table tennis" instead of the more common, but trademarked, term.

Machine Robo is a Japanese transforming robot toy line first released in 1982 by Popy, a division of Bandai, then later by Bandai proper. The franchise was marketed as Robo Machine in Europe, and Machine Men (or Robot Machine Men) in Australia. A large portion of these toys were exported to North America as part of Tonka's Gobots and Rock Lords series, beginning in 1984.

In table tennis, a forehand is a stroke that is played on the right hand side of the player's body (for a right hander), and vice versa for left hander's.

The forehand side of a player is the right hand side of a right hander and the left hand side for left handlers. The forehand side of the bat (for shake handlers) is the side of the bat used to hit forehand strokes (Greg Letts, 2006).

In table tennis, a backhand is a stroke that is played on the left hand side of the player's body (for a right hander) and vice versa for left hander's. The backhand side of a player is the left hand side of a right hander and the right hand side for left handlers. The backhand side of the bat (for shake handers) is the side of the bat used to hit backhand strokes (Greg Letts, 2006).

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II. OBJECTIVE OF THE STUDY

The objective of the study was to know the effect of specific drills through table tennis ball feeding machine on selected skill performance variables of non- table tennis players.

A. Hypothesis

It was hypothesized that there would be a significant difference between pretest and posttest due to specific drills through table tennis ball feeding machine on selected skill performance variables of non-table tennis players.

B. Delimitations

1) This study would be delimited to 30 non-table tennis men players from Faculty of General and Adapted Physical Education and Yoga, Ramakrishna Mission Vivekananda University and Maruthi College of Physical Education, Coimbatore.
2) The age of the subject's was ranged from 23 to 28 years.
3) This study restricted the players were not participated in the inter-school and inter-collegiate table tennis tournament.
4) For this study the following variables were selected.
5) Independent variable Specific drills through table tennis ball feeding machine
6) *Dependent variable*
7) Forehand driv
8) Backhand drive
9) This study would be delimited to six weeks of training period and five days in each week.

C. Exprimental Design

For this study, thirty men table tennis players were randomly selected from the Faculty of General & Adapted Physical Education and Yoga, Ramakrishna Mission Vivekananda University, and Maruthi College of Physical Education, Periyanaickenpalayam, Coimbatore, Tamil Nadu. The selected subjects were considered as two groups in that fifteen subjects were acted as control group and no training was given this group and another fifteen subjects were acted as experimental group this group was undergone the training . The following criterion variables were selected for the study namely forehand drive and backhand drive. The training period would be the six weeks except Saturday and Sunday of every week.

Table I Tools And Technique

S.NO	VARIABLES	NAME OF THE TEST	UNIT OF MEASUREMENTS
2.	Forehand drive	Forehand drive test	Points
3.	Backhand drive	Backhand drive test	Points

D. List Of Specific Drills Through Ball Feeding Machine

Stationary ,Man to man practice, Wall practice, Forehand service, Flick service, Clockwise spin, Anticlockwise spin, Reverse spin ,Speed drive, Loop practice, Cross pass, Multi ball practice, Topspin service, Full force service, Force against wall, Fast attacking push, High toss service.

III. RESULT AND DISCUSSION

Computation of analysis of covariance of table tennis ball feeding machine group and control group on forehand drive are presented in table II

Table-II

Computation of analysis of covariance of table tennis ball feeding machine group and control group on forehand drive

	Ball feeding machine practice Group	Control Group	Source of Variance	Sum of Squares	df	Mean Squares	F-ratio
Pre-Test Means	19.60	19.40	BG	0.30	1	0.30	0.02
			WG	299.20	28	10.68	
Post-Test Means	22.66	20.00	BG	53.33	1	53.33	4.40*
			WG	339.33	28	12.11	
Adjusted Post-Test Means	22.57	20.09	BG	46.18	1	46.18	14.40*
			WG	86.57	27	3.20	

BG- Between Group Means *Significant WG- Within Group Means (Table Value for 0.05 Level for df1& 28 = 4.19)
df- Degrees of Freedom (Table Value for 0.05 Level for df1& 27 = 4.21)

A. Results On Forehand Drive

An examination of table - II indicates that the results of ANCOVA for pre-test scores of the table tennis ball feeding machine practice group and control group. The obtained F-ratio for the pre-test is 0.02 (P>0.05) indicating that the random sampling is successful and the table F-ratio is 4.19. Hence the pre-test mean F-ratio is insignificant at 0.05 level of confidence for the degree of freedom 1 and 28.

The obtained F-ratio for the post-test is 4.40 (P>0.05) and the table F-ratio is 4.21. Hence the post-test mean F-ratio is significant at 0.05 level of confidence for the degree of freedom 1 and 27.

The adjusted post-test means of ball feeding machine practice group and control group are 22.57 and 20.09 respectively. The obtained F-ratio is for the adjusted post-test means is 14.40 (P<0.05) and the table F-ratio is 4.19.. Hence the adjusted post-test mean concentration F-ratio is significant at 0.05 level of confidence for the degree of freedom 1 and 27.

Pre-test, post-test and adjusted post test mean difference of the table tennis ball feeding machine practice group and control group on fore hand drive is presented in Figure – 1

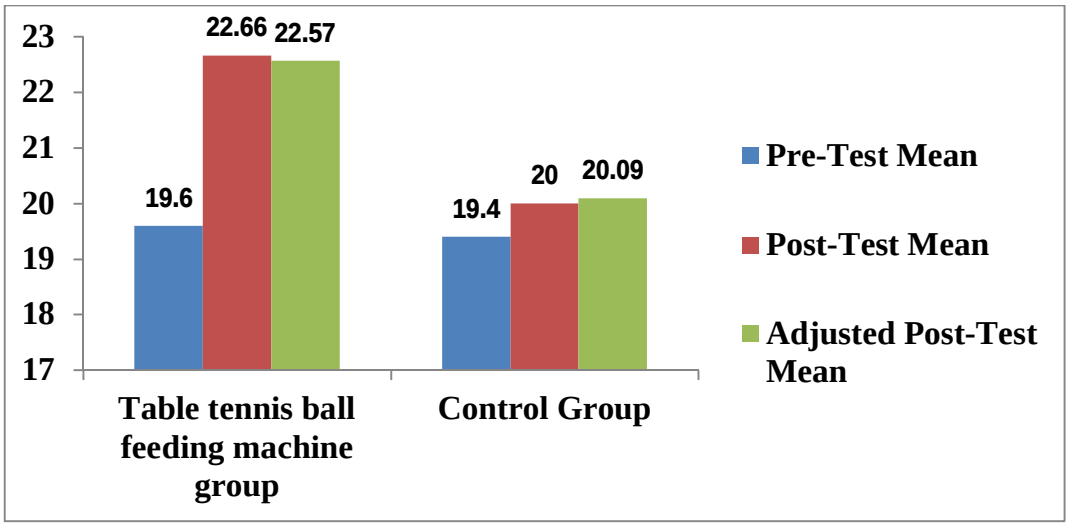

FIGURE-1

Bar Diagram Showing The Pretest, Posttest And Adjusted Posttest Mean Differences Oftable Tennis Ball Feeding Machine Group And Control Group On Fore Hand Drive

Computation of analysis of covariance of table tennis ball feeding machine group and control group on back hand drive are presented in table III

TABLE-III

Computation Of Analysis Of Covariance Of Table Tennis Ball Feeding Machine Group And Control Group On Back Hand Drive

	Ball feeding machine practice Group	Control Group	Source of Variance	Sum of Squares	df	Mean Squares	F-ratio
Pre-Test Means	16.00	16.33	BG	0.83	1	0.83	0.11
			WG	197.33	28	7.04	
Post-Test Means	18.00	15.86	BG	34.13	1	34.13	4.72*
			WG	231.73	28	8.27	
Adjusted Post-Test Means	18.13	15.73	BG	43.24	1	43.24	11.76*
			WG	99.28	27	3.67	

BG- Between Group Means*Significant
WG- Within Group Means (Table Value for 0.05 Level for df1& 28 = 4.19)
df- Degrees of Freedo (Table Value for 0.05 Level for df1& 27 = 4.21)

B. Results On Back Hand Drive

An examination of table - III indicates that the results of ANCOVA for pre-test scores of the table tennis ball feeding machine practice group and control group. The obtained F-ratio for the pre-test is 0.11 (P>0.05) indicating that the random sampling is successful and the table F-ratio is 4.19. Hence the pre-test mean F-ratio is insignificant at 0.05 level of confidence for the degree of freedom 1 and 28.

The obtained F-ratio for the post-test is 4.72 (P>0.05) and the table F-ratio is 4.19.. Hence the post-test mean F-ratio is significant at 0.05 level of confidence for the degree of freedom 1 and 28.

The adjusted post-test means of Ball feeding machine practice group and control group are 18.13 and 15.73 respectively. The obtained F-ratio is for the adjusted post-test means is 11.76 (P<0.05) and the table F-ratio is 4.21. Hence the adjusted post-test mean concentration F-ratio is significant at 0.05 level of confidence for the degree of freedom 1 and 27.

Pre-test, post-test and adjusted post test mean difference of the Ball feeding machine practice Group and control group on back hand drive is presented in Figure - 2

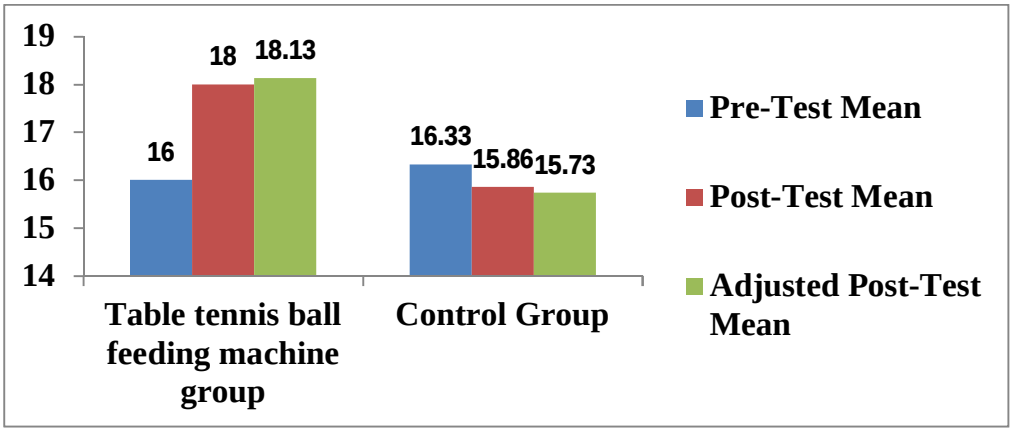

FIGURE-2

Bar Diagram Showing The Pretest, Posttest And Adjusted Posttest Mean Differences Of Table Tennis Ball Feeding Machine Group And Control Group On Back Hand Drive

C. Discussion On Findings

The prime intention of the researcher was to analyze the table tennis ball feeding machine practice on the selected skills namely forehand drive and backhand drive of non-table tennis players. The theme behind this study was to observe the influence of table tennis ball feeding machine practice on the selected skills namely forehand drive and backhand drive of non-table tennis men players. To achieve this, two different practice groups were designed as experimental group (table tennis ball feeding machine practice group) and control group.

The study indicated that the experimental practice group (table tennis ball feeding machine practice group) significantly improved the selected dependent variables namely forehand drive and backhand drive, when compared to the control group.

The study indicated that the control group had not significantly improved the selected dependent variables

D. Skill Performance Variables

The finding on forehand drive and backhand drive shows that there is a significant effect due to table tennis ball feeding machine training of non-table tennis men players. The finding of the study is supported by the following authors.

Dr. Pushpendra Purashwan., Dr. A. K. Datta and Mr. Manoj Purashwani(2010) concluded that the Construction of Norms Skill Test for Table Tennis battery test showed significant improvement on battery of four test items, namely Target Service Test, Alternate Counter Test and Fore Hand Drive on Target Test with Foot movement after playing backhand push.

Zagatto A, Miranda MF and Gobatto CA. (2011). Concluded the Critical power concept adapted for the specific table tennis test that showed significant improvement in an aerobic endurance in specific table tennis tests.

E. Discussion Of Hypothesis

It was hypothesized that there would be a significant improvement on the selected skill performance variables of non- table tennis players. The finding of the study showed that there is a significant improvement on the selected skill performance variables namely forehand drive and backhand drive of the non-table tennis men players. Hence, the hypothesis was accepted the above said variables.

IV. CONCLUSION

Within the limitation of the study the following conclusions were drawn.

It was concluded that the skill performance variables namely forehand drive and backhand drive are significantly improved due to the treatment of specific drills through table tennis ball feeding machine.

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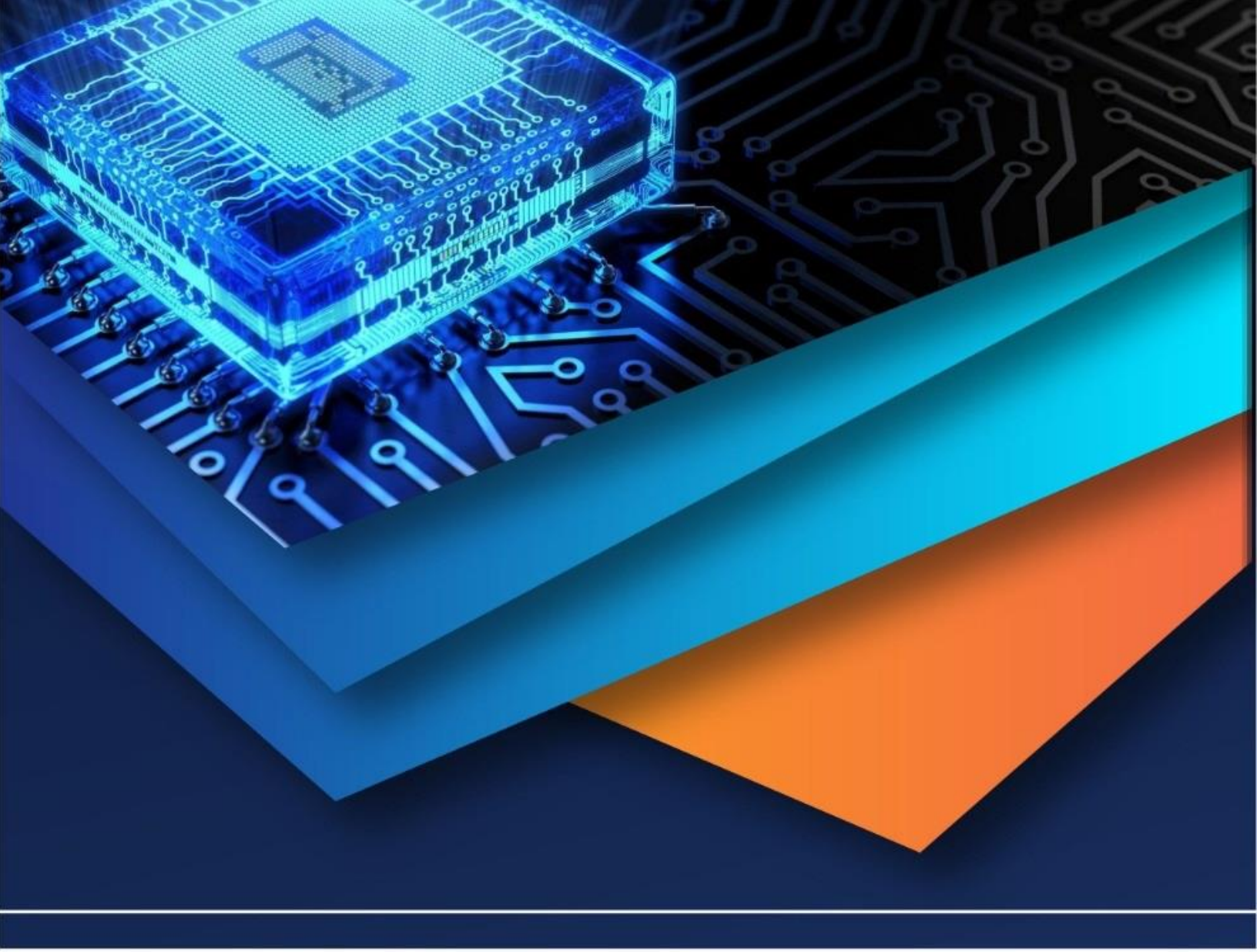

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