



EFFECT OF SPECIFIC TABLE TENNIS TRAINING ON THE SELECTED SKILL PERFORMANCE VARIABLES OF SCHOOL BOYS

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DOI: 10.26524/1433

ABSTRACT: The objective of the study is to find out the effect of specific table tennis training on the selected skill performance variables of school boys. For this study, twenty school boys were randomly selected from the S.S.M. Lakshmiammal Matric.Hr.Sec.School. Komarapalayam, Namakkal, Tamilnadu. The selected subjects were considered as only one group. The following criterion variables were selected for the study such as skill performance variables namely, target service and alternate counter. The training period would be the six weeks except Saturday and Sunday of every week. 't' ratio was calculated to find out the significant of the difference between the mean of pre and post tests of the group. The level of significance for the study was chosen as 0.05. It was concluded that the skill performance variables namely target service and alternate counter were significantly improved due to the treatment of specific table tennis training.

Keywords: Table tennis; taret service; alternate counter

INTRODUCTION

Worldwide millions of people play table tennis, and with good reason. It is entertaining, fun, fast and has great health benefits as well [1-2]. Because of the low risk of injury table tennis can be enjoyed by people of all ages and fitness levels [3]. When played regularly it improves reflexes, hand-eye coordination and balance, while toning and strengthening the core muscles, upper and lower body. It's great for working up a sweat and increasing your heart rate, thus helping to keep your heart strong and healthy [4]. Not only is it a good cardiovascular exercise, it is also a great aerobic workout [5]. When running about the table your heart rate increases and your body's requirement for oxygen becomes much higher, therefore you breath heavier, faster and deeper, which increases lung capacity in addition to how efficiently your lungs use oxygen [6-7].

The speed, spin and placement of the ball are crucial, and practiced players are expert in both creating and solving puzzles involving these three attributes. Both gross and fine muscle movements are improved [8]. The game is distinguished by bursts of exertion and recovery, leading to fast-twitch muscle development. Over the course of play, a fair, yet not extreme, amount of aerobic activity occurs. Players can set their own level of involvement. Table tennis is accurately described as 'high-speed chess' [9]. The mental alertness encouraged by the sport's tactical challenges is particularly good for seniors. The ability to concentrate on applying a tactic is good for all ages. Table tennis is available year-round as a social outlet [10-11]. It is one of the



few sports in which size, age, and sex are irrelevant competitive factors. This aspect has led to its adoption as the world's most popular life sport and the slogan "table tennis: anybody, anytime, anywhere" [12].

"Sports training is a planned and controlled process in which, for achieving a goal, changes in complex sports motor performance, ability to act and behavior are made through measures of content, methods and organization" [13-14].

"Sports training, based on scientific knowledge, is a pedagogical process of sports perfection which through systematic effect on psycho-physical performance ability and performance readiness aims at leading the sportsman to high and the highest performance [15]. Through active and conscious interaction with the given demands in sports training, the sportsman's personality develops according to the norms and standards of socialist society".

The skill of a game may be defined as a group of movement by which, due to its nature and its rules. Its objects may best be attained. The particular important of the skills of table tennis derives from the special nature of the rules [16]. There are several marked differences between table tennis and the other term ball games. In table tennis the ball may at be caught or held. And all passes are very short. The number of passes between members of a team is limited. A net separate two areas of plays.

Specific skill training is the principal of training that states that sports training should be relevant and appropriate to the sports for which the individual in training in order to product a training effect. The specificity principal simply state that training must go from highly general training to highly specific skill training [17]. The specific skill training also implies that to become better at a particular that exercise or skill [18]. To be a good cyclist, you must cycle, the point to take away in that a runner should train by running and a swimmer should train by swimming.

OBJECTIVE OF THE STUDY

The study contributed the specific table tennis training programme for school boys.

EXPERIMENTAL DESIGN

For this study, twenty school boys were randomly selected from the S.S.M. Lakshmiammal Matric.Hr.Sec.School. Komarapalayam, Namakkal, Tamilnadu. The selected subjects were considered as only one group. The following criterion variables were selected for the study such as skill performance variables namely, target service and alternate counter. Target service was analyzed by Dr. A.K. Datta Target Service Test. alternate counter (rally) was analyzed by Dr.pushendra puraswani Alternate Counter Test. The training period would be the six weeks except Saturday and Sunday of every week. 't' ratio was calculated to find out the significant of the difference between the mean of pre and post tests of the group. The level of significance for the study was chosen as 0.05.



TRAINING SCHEDULE

Table 1
The first week to third week training plan

Days	First week			Second week			Third week			Total dur. of a week in min.	Dur. of a trag. Comp. in min.
	No. of Drills	Rep.	Sets	No. of Drills	Rep.	Sets	No. of Drills	Rep.	Sets		
Monday	5	8	4	4	8	5	5	10	4	225	45
Tuesday	5	10	4	5	8	4	5	10	4		45
Wed. day	5	8	4	4	8	5	5	8	5		45
Thursday	5	8	4	4	8	5	5	8	5		45
Friday	5	10	4	5	8	4	5	10	4		45

Table 2
The fourth week to sixth week training plan

Days	Fourth week			Fifth week			Sixth week			Total dur. of a week in min.	Dur. of a trag. Comp. in min.
	No. of Drills	Rep.	Sets	No. of Drills	Rep.	Sets	No. of Drills	Rep.	Sets		
Monday	5	10	4	5	8	5	5	8	5	225	45
Tuesday	5	10	4	5	8	5	4	10	4		45
Wed. day	5	8	5	5	8	5	5	8	5		45
Thursday	5	8	5	5	8	5	4	10	4		45
Friday	5	10	4	5	8	5	5	8	5		45

Weekly 5 days X 45 minutes = 225 minutes



List of Drills

- 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
- Short backspin service
- Attacks (R-L RL Higher ball)

RESULTS

Target Service and Alternate Counter

The data obtained on Target service of the group has been analyzed using the analysis of variance are presented in table – 3.

Table 3
Table Showing the Mean Difference, Standard Deviation and ‘T’ Value of Specific Table Tennis Training Group on Target Service

Variable	Test	Mean	SD	Std. Error of the mean	DF	‘t’	Table value
Target service	Pre test	7.40	1.53	0.34	19	10.37*	2.09
	Post-test	9.10	1.65	0.36			
Alternate counter	Pre test	14.10	1.71	0.38	19	10.98*	2.09
	Post-test	16.25	2.26	0.50			

* Significance at 0.05 level of confidence

To find out the significant difference between pre test and post test on target service and alternate counter of specific table tennis training group ‘t’ ratio was employed and the level of significance was set at 0.05.

The specific table tennis training group pre test value was 7.40 and post test value was 9.10 respectively. Specific table tennis training group obtained ‘t’ ratio was 10.37 was greater

than the table value 2.09. It shows that the specific table tennis training group had significant improvement on Target service.

The specific Table tennis training group pre test value was 14.10 and post test value was 16.25 respectively. Specific table tennis training group obtained 't' ratio was 10.98 was greater than the table value 2.09. It shows that the specific table tennis training group had significant improvement on Alternate counter. Pre test and post test of specific table tennis training group on target service and Alternate counter showed in figure-1.

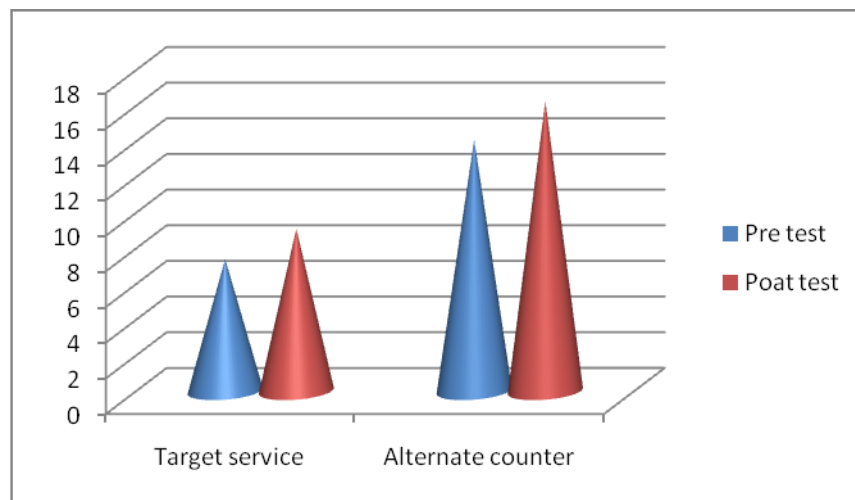


Fig 1: Figure showing the mean values of specific table tennis training on target service and alternate counter

CONCLUSIONS

Within the limitation of the study the following conclusions were drawn. It was concluded that the skill performance variables namely target service and alternate counter were significantly improved due to the treatment of specific table tennis training.

ACKNOWLEDGMENTS

I express my humble gratitude and heartfelt thanks to the Faculty of General & Adapted Physical Education and Yoga of Ramakrishna Mission Vivekananda University for having given permission to work on this problem on the whole hearted cooperation, support and timely help throughout a study for its successful completion. Grateful thanks to **Dr. S.Alagesan**, Professor & Head, **Dr. P.J. Sebastian**, Professor and all other faculty members of Faculty of General & Adapted Physical Education and Yoga of Ramakrishna Mission Vivekananda University, Coimbatore, Tamil Nadu, India.



REFERENCES

1. E. Ak, S. Koçak, Coincidence-anticipation timing and reaction time in youth tennis and table tennis players, *Percept Mot Skills*, 110 (2010) 879-87.
2. C. Ferrand, A naturalistic study of the directional interpretation process of discrete emotions during high-stakes table tennis matches, *Journal of Sport & Exercise Psychology*, 31 (2009) 318-36.
3. E. Jafarzadehpur, M. R. Yarigholi, Comparison of visual acuity in reduced lumination and facility of ocular accommodation in table tennis champions and non-players, *Journal of Sports Science and Medicine*, 3 (2004) 44-8.
4. M. Kondrič, A. M. Zagatto, and D. Sekulić, The physiological demands of table tennis: a review, *Journal of Sports Science and Medicine*, 12 (2013) 362-370.
5. Y. Iino, T. Kojima, Kinetics of the upper limb during table tennis topspin forehands in advanced and intermediate players, *Sports Biomech*, 10 (2011) 361-77.
6. Y. Iino, and T. Kojima, Kinematics of table tennis topspin forehands: effects of performance level and ball spin, *J Sports Sciences*, 27 (2009) 1311-21.
7. W. Liu, C. Zhou, L. Ji, and J. C. Watson, The Effect of Goal Setting Difficulty on Serving Success in Table Tennis and the Mediating Mechanism of Self-regulation, *Journal of Human Kinetics*, 33 (2012) 173-85.
8. W. Marinovic, C. A. Iizuka, A. M. Freudenheim, Control of striking velocity by table tennis players, *Percept Mot Skills*, 99 (2004) 1027-34.
9. G. Martinent, C. Ferrand, A naturalistic study of the directional interpretation process of discrete emotions during high-stakes table tennis matches, *Journal of Sport & Exercise Psychology*, 31 (2009) 318-36.
10. I. Malagoli Lanzoni, R. Di Michele, F. Merni, A notational analysis of shot characteristics in top-level table tennis players, *Eur Journal of Sport Sciences*, 14(4) (2014) 309-17.
11. M. Kondrič, A. M. Zagatto, D. Sekulić, The Physiological Demands of Table Tennis: A Review, *Journal of Sports Science and Medicine*, 12 (2013) 362-370.
12. S. Rusdorf, G. Brunnett, M. Lorenz, and T. Winkler, Real-time interaction with a humanoid avatar in an immersive table tennis simulation, *IEEE Trans Vis Computer Graph*, 13 (2007) 15-25.
13. C. Sève, Elite athletes' sensitivity to context: the case of a change in



- scoring system in table tennis. *Percept Mot Skills*, 99 (2004) 1274-6.
14. V. Sørensen, R. P. Ingvaldsen, H. T. Whiting, The application of coordination dynamics to the analysis of discrete movements using table tennis as a paradigm skill, *Biological Cybernetics*, 85 (2001) 27-38.
15. C. Sève, J. Saury, L. Ria, and M. Durand, Structure of expert players' activity during competitive interaction in table tennis, *Research Quarterly for Exercise and Sport*, 74 (2003) 71-83.
16. J. Sindik, S. Missoni, A comparison of two conative characteristics of top basketball and recreational table tennis players, *Collegium Antropologicum*, 37 (2013) 187-96.
17. D. Van Biesen, J. Verellen, C. Meyer, J. Mactavish, P. Van de Vliet, and Y. Vanlandewijck, The ability of elite table tennis players with intellectual disabilities to adapt their service/return, *Adapted Physical Activity Quarterly*, 27 (2010) 242-57.
18. H. Zhang, W. Liu, J. J. Hu, and R. Z. Liu, Evaluation of elite table tennis players' technique effectiveness, *Sports Sciences*, 31 (2013) 1526-34.