

NEW APPROACHES FOR THE MODERNIZATION OF THE TABLE TENNIS TRAINING

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Abstract: The purpose of the present research is to point out the role of the modern technology applied in the training of junior tennis players. Therefore, we have compared the technical evolution of two groups (an experiment group – where we have used the ball machine and a control group). After a period of observations and experiments, besides the registered results for the applied set of training drills, we have noticed that the machine drills have improved each player's individual technique, at the same time, they provide an increased effort, maintaining thus the necessary physical shape; they have also developed the player's interest for performing the applied techniques, their progress being obvious from one training session to another.

Keywords: *table tennis, coordination, machine.*

Introduction

A synthesis of different points of view expressed by Romanian authors reveals the sports training as a complex process, of educational and biological nature systematically and constantly developed meant to adjust the human body to high efforts and to improve the results of a competitive physical training specific to sports disciplines. [1,2,3]

The technical training improves the players' motor skills through the development of the control ability, of the performance accuracy and stability, determining thus an increased level of adjustment to different situations and conditions and a lower energetic consumption.

Efficient methods arouse the player's curiosity and interest, therefore, the training process should consider a background.

The present paper intends to prove the fact that the use of machines meant for the practice of technical elements, may lead to a fast learning of these elements.

Methods

The experiment was developed during October 1st, 2014 and May 1st, 2015 and included two groups (the control and the experiment group). Each group counted 8 subjects, sportsmen performing for CSS Slatina. The set of tests applied during our experiment was meant to establish a complex assessment of the technical evolution of the two groups, considering the fact that the experiment group performed the individualized training by means of the machine, while the control group performed it in a traditional manner, by means of the ball box.

Paper hypothesis

We consider that the quality and the efficiency of the educational activities, namely, teaching-learning-evaluation, will significantly increase as

compared to the application of the traditional educational approach, if, during the initiation process (training) in the table tennis, the children are taught to use a modern educational technology (such as the machine).

Results

Comparing the results achieved during the three testing periods - initial, intermediary and final – we may notice the technical evolution of both the experiment and the control group, as well as the technical progress achieved by the sportsmen (tables 1,2,3).

The average of the results registered during the training and at the end of the experiment reveals differences between the two groups.

Comparing the average value of the ball transfer registered during the initial and the final testing, we observe that:

- to the counterhit test, the subjects of the control group registered an advance of 5.5 transfers, while the subjects of the experiment group gain 8 ball transfers;
- to the topspin test, the experiment group register over 8 additional ball transfers, while the control group performs around 6 additional ball transfers;
- to the simple, alternating or free drive trial, the average indicates a progress of 3 ball transfers for the experiment group as compared to the control group.

The subjects of the control group also register a technical improvement but it is inferior to that registered by the experiment group and the execution quality of the technical techniques of counterhits and topspin strokes is below the level registered by the first group.

Considering these aspects, the subjects of the experiment group continued with the learning of more complex technical methods which also included the topspin backhand while the subjects

of the control group continued with the performance of simple drills such as the topspin forehand.

Table no 1. Arithmetical mean of ball transfers – diagonal topspin: forehand, backhand

Testing moment Group Evaluation trial	Initial testing		Intermediary testing		Final testing	
	E	C	E	C	E	C
Forehand counterhits	4.9	3.0	8.5	7.5	13.5	10.5
Backhand counterhits	3.5	3.6	6.5	5.5	11.5	9.5

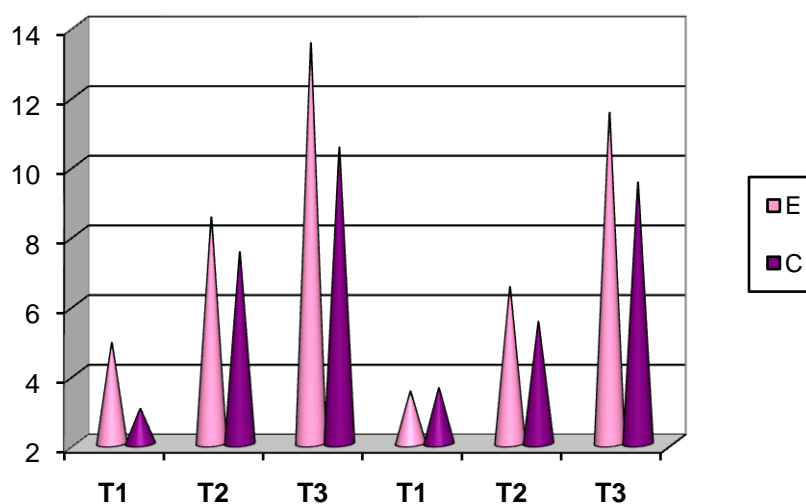


Chart no 1. The arithmetical mean of ball transfers during the three testing periods – diagonal counterhits: forehand, backhand

Table no 2. Arithmetical mean of ball transfers –topspin forehand: in diagonal and in straight line

Testing moment Group Evaluation trial	Initial testing		Intermediary testing		Final testing	
	E	C	E	C	E	C
Topspin forehand - diagonală	3	3	5.5	4	11.5	9
Topspin forehand - linie	2.5	2.5	5.5	4.5	10.5	8.5

Chart no 2. The arithmetical mean of ball transfers during the three testing periods – topspin forehand: in diagonal and in straight line

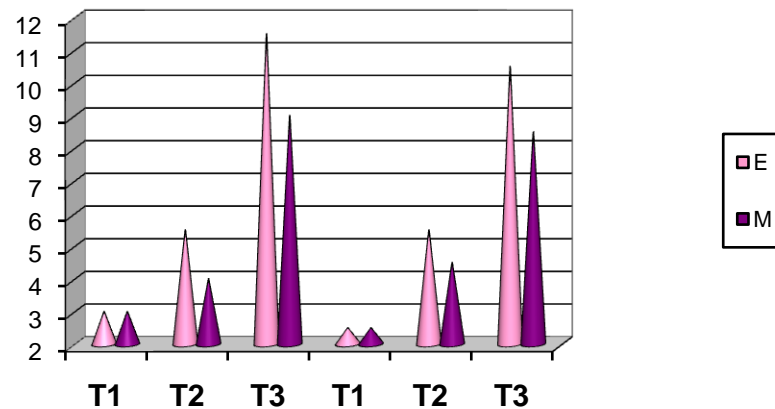


Table no 3. Arithmetical mean of ball transfers –free and pused forehand and backhand counterhit; topspin forehand on cut balls

Testing moment Group Evaluation trial	Initial testing		Intermediary testing		Final testing	
	E	C	E	C	E	C
Free and pused forehand and backhand counterhit	4.5	4	6.57	6	12	9
Topspin forehand on cut balls	2	2	4	3	8	5

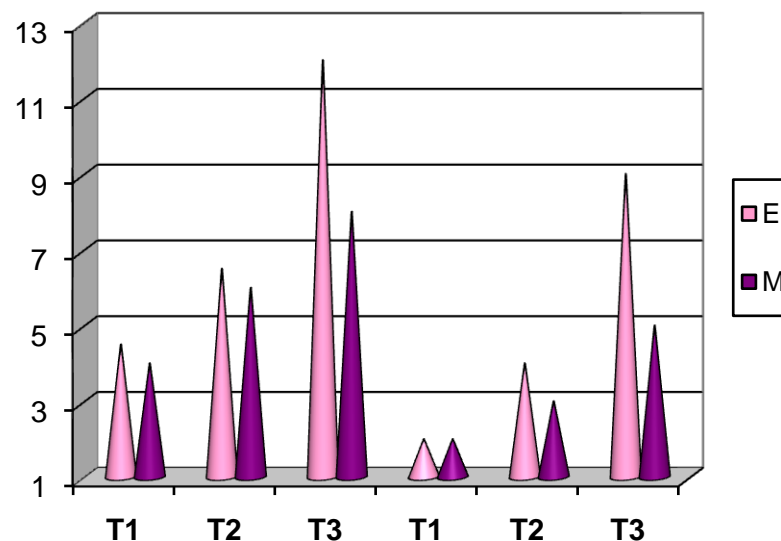


Chart no 3. The arithmetical mean of ball transfers during the three testing periods – diagonal counterhits

Discussion

There are significant differences between the experiment and the control group: the influence of the ball strike technique (1,2 tests) combined with a large number of rehearsals performed by attaching a contact sensor to the machine was relevant.

Observing the fast advance registered during this period, the proposed training drills offered confidence in the application of self-learning and improvement, developing the attention, and through the high level of practice, we have achieved training intensity, incentive, demand of attention, decision factors. The training drills have

influenced the improvement of the technical factor, as well as of other training components, highly contributing to the learning process, to the strengthening and refinement of motor skills so necessary in the junior players' development. These improvements promote the importance of the coordination during the motor act as a necessary condition of the motor pattern performance, and depend on the accuracy of the information provided by the analyzers whose integrity and training level play an important role [5].

In order to deal with the current tendencies of the tennis game, *the sportsmen' training should be tightly linked to the current needs of the technical-tactical approach designed for the table tennis players.*

Conclusions

Trainers should introduce various drills performed with sports devices meant to stimulate the sportsmen' performance and which are specific to the age characteristics and to the training level. Trainers should pay attention to reduce the performance duration as the effort is intense.

The auxiliary devices may be used the entire year setting the individualization process as a main purpose, namely, the self-learning, improvement and the development of basic physical skills and of the specific physical training.

The training duration should be reported to the effort intensity, thus:

- being eager to achieve all at once, some players may exceed the given time, while other players work superficially registering no effort;
- it is important that the training on sports devices should be assisted by the trainer;
- the trainer should constantly observe and correct the mistakes.

The player should be aware of the use of auxiliary sports devices in his/her training, therefore, the trainer has the responsibility to develop this state of attention. The practice using the technical devices should also have a tactical content. A multilateral assistance should be provided while training on sports devices, namely, when passing from one device to another spending most of the time on devices which define the training topics. Certain technical devices may be used to fulfill the control norms.

References:

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