

The Reciprocal Style In Teaching Tennis For Students Aged 14-15 Years

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ABSTRACT

The aim of the present study was to evaluate the reciprocal style of teaching, in typical tennis strokes, such as forehand and backhand. A sample of 102 children, aged 14-15, who had no previous experience in tennis participated in this study. Students were engaged in 12 lessons held in their school environment. The experimental group was subjected to experimental intervention for 6 weeks in the independent variable which is the reciprocal teaching method for strokes, while the control group was not subjected to any intervention and was not trained following this teaching style. Data was processed by statistical analysis through t-test for independent samples. The results showed that the reciprocal style of teaching had increased the mean of consecutive strokes regardless of gender, with the experimental group showing a significant improvement in performance in the measured wall test, in comparison to the control group which showed no improvement.

Keywords: Teaching styles, reciprocal teaching style, forehand, backhand, tennis

INTRODUCTION

Tennis is admittedly a difficult but enjoyable sport which, during the last 15-20 years, has undergone a general-progressive development concerning the various methods of teaching its basic strokes (Crespo, 1999). The term teaching method is defined as the set of planned actions and the systematic way of learning which aim at achieving predetermined goals. The objective of teaching is to connect students in consequential goal-orientated activities with the aim of achieving instructional outcomes through lessons (Mosston & Ashworth, 2008; Rink, 2002).

Concerning the importance of research and considering that one of the primary goals of physical education in secondary education is to have children positive and psychomotor experiences so that by finishing school they continue to work out their whole life, we understand that those teaching methods and styles should be used which, in conjunction with the appropriate content, aim at promoting and developing more positive attitudes to lifelong learning.

Australian tennis coaches believe they use a range of teaching styles during their coaching sessions throughout the year ((Hewitt, Edwards, & Ashworth, 2011)). According to guru of teaching styles Muska Mosston, the anatomy of teaching style is made up of planning, execution and evaluation decisions, and no one teaching style is superlative for every classroom teaching situation (McCullick & Byra, 2002).

In the fields of teaching Physical Education (PE) and sports, teaching methods of learning-practicing skills can be categorized into: the total method during which

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skills-strokes are taught as a whole, the part method during which skills are taught and practiced in separate parts which are then combined back into the whole, the part-progressive method (a variation of part method) in which different parts of a skill are taught and learned independently and then combined sequentially, as well as the blended method which is a combination of total and part methods of teaching (Grivas, 2015).

In Inductive or Synthetic method of teaching, skills are presented from part to whole, from specific to general, from experience to theory, from specific to abstract, from processing individual concepts to forming general terms, rules and principles. In total method, motor skills are presented to students as a whole. During the very first moments of practice stage, students have to face difficulties while practicing a movement in its simplest form and the outcome of learning becomes obvious, with motor-intelligent students showing higher performance (Papandreou, 2001).

In Deductive or Productive or Analytical method of teaching, skills are presented from whole to part, from general to specific, from theory to experience, from abstract to specific, from processing general terms, rules, principles to ascertaining their individual applications.

Students experiment, make efforts and, at the same time, are monitored and assessed by the coach developing a controlled initiative, through a teaching method which favors collaborative spirit, but disadvantages more complex forms of movement in which potential risks of miscomprehension are posed (Mavvidis, Teaching and Training in Tennis, 2005).

The need of Mosston and Ashworth (1986) not to impose his views on his students in teaching Physical Education has led to the creation of a set of teaching styles in the field of PE, the so-called "Spectrum of Teaching Styles".

In Physical Education, the methods used in recent decades at the global level are the Spectrum of Teaching Styles introduced by Mosston. It is a way of classifying teaching methods based on the dynamics of teaching, where each method provides a framework within which an educator can teach (Digelidis, Bogiatzi, Chatzigeorgiadis, & Papaioannou, 2006). The majority of decisions are taken by the teacher, student or both in one or all of the three phases of the process

teaching (planning – conducting - evaluation). These decisions are the means of achieving the objectives of each course which, in turn, serve the general objectives of the course and, by extension, the aims of physical education (Mosston & Ashworth, 2002).

The primary Principle-Axiom of the Spectrum leads to the conclusion that there is not only one single teaching method but there are numerous and each one is differentiated depending on who the decision-maker is, the teacher or the student, resulting to cultivating and meeting different objectives. Depending on the goals we wish to achieve, this decision-making process should involve two primary mechanisms: a) the mechanism of copying- Reproduction, which involves the potential of the person to reproduce what is already known, and b) the mechanism of creating- Production, that is the mechanism which creates things which have not yet been invented.

Teaching methods are also classified according to two general headings: productive and reproductive. In reproductive or direct teaching methods the teacher is the one who makes most of the decisions. Productive or indirect methods allow the students more decision making. Reproductive styles are direct, teacher-centered and theoretically based on Behaviorism; learning derives from the student and Cognitive learning becomes dominant (McCullick & Byra, 2002).

In other research studies, it was found that the Command Style, the Practice Style and the Reciprocal Style were equally effective in teaching motor skills to young students (Golberger, Gerney, & Chamberlain, The effects of three styles of teaching on the psychomotor performance of fifth grade children, 1982; Golberger, Direct styles of teaching and psychomotor performance, 1983) and university students (Beckett, 1991; Boyce, 1992; Pellet & Harrison, 1995; Ernst & Byra, 1998; Mosston & Ashworth, Teaching physical education, 2002).

In a three-week study conducted by Cai (1997), responses and reports of 121 college students in the United States of America were investigated. Three different teaching styles were applied (Command, Reciprocal and Inclusion) in a random order. The results indicated that the command style was more effective compared to the other two styles in racquetball and karate.

More feedback is provided when the reciprocal style of teaching is used (Cox, 1986; Byra & Marks, The effect of two pairing techniques on specific feedback and comfort levels of learners in the reciprocal style of teaching., 1993; Ernst & Byra, 1998; Byra, Applying a task progression to the reciprocal style of teaching, 2004; Byra, The reciprocal style of teaching: A positive motivational climate, 2006), while less incidents of antisocial and unwanted behaviors are observed compared to the command and practice styles (Fantuzzo, King, & Heller, 1992)

The reciprocal style of teaching belongs to the cluster of reproductive methods, which are not compared or assessed as such in research studies conducted within this cluster of the Spectrum of teaching styles. Researches on the reciprocal style of teaching is lacking within Greek and international literature, without however comparing or assessing it by that method, given Mosston's assumptions about the consequences of its application, while the effectiveness of this method in Tennis, and more specifically in its basic strokes such as forehand and backhand has not been studied. This paper will attempt to explore-evaluate the R.T.S. in learning - developing the forehand & backhand stroke in tennis in a sample of high schools students

In reciprocal methods, a part of the decisions is handed to the students who as assistant-observers give their peers feedback based on the instructions already given by the teacher. Consequently in the applied teaching method, conditions of immediate feedback and social interactions were cultivated and developed within pairs of students. Another prime objective of the applied reciprocal style was teaching the sport and learning, that is the relatively permanent change of students' behavior and skills which is the outcome of receiving and processing information combined with biological processes.

PURPOSE

The aim of this study was to evaluate the effectiveness of the reciprocal style of teaching in learning - developing motor skills in Tennis (ITF Tennis, 2008) and more specifically on the forehand and backhand strokes in a sample of students aged 14-15 years. The effectiveness of reciprocal teaching method in the two basic tennis strokes was examined. The sample consisted of students from the 2nd Junior High School of Chalkida and the High School of Drosia.

METHOD

The key objective of this study (after students had randomly been assigned to experimental group by conducting an initial measurement- same starting point after the implementation of the reciprocal style, as well) was that decisions should be made at the stage of assessment so that an immediate feedback, the most important feature of this method, could be achieved. Students were organized in pairs with each one assigned a specific role. One student performed the task (performer) as in Practice style of the Spectrum, with the only difference being that he/she only interacted with the student observing him/her (observer), while the observer provided individual feedback to the doer and only interacted with the teacher. The teacher observed both students and only interacted with the observer.

The term forehand is used as a base for every tennis stroke made from the right side of the body for a right-handed person, and from the left side for a left-handed person. Forehand is referred to as the most prevalent and important groundstroke covering 70% of groundstrokes in a tennis match (Mantis, Grivas, Kambas, & Zachopoulou, 1998). The term backhand, for a right-handed player, is the shot which is struck from the left side by bringing the racket across the body, at which point the ball is hit, and ends with the hand on the right side of the body. Backhands are mostly used for shots hit while playing in the baseline.

The control group consisted of 34 students (Table 1), while the experimental group consisted of 68 students with age ranging from $14 \pm 0,4$.

An important aspect of the applied reciprocal style in the experimental group was the task and criteria sheet. Directions to the doer and the observer, performing tasks criteria, examples of comments for feedback and assessment, as well as the duration of exercises or the number of attempts to be made for completion of each exercise were included in this task sheet. Moreover, there was a specific description of the exercise along with samples of verbal behavior to be used as feedback. The task and criteria sheet included pictures and sketches enabling the student-observer to determine when the doer executed each part of the exercise properly (Melograno, 1997; Ennis, Solmon, Satina, Loftus, Mensch, & McCauley, 1999).

Performance of students was measured in the Game against the wall during the first interventional lesson (before) and during the last 12th interventional lesson (after) and specifically in “Wandtest” of Majer P. (1987). In the bibliography, tennis test diagnosis tests mainly refer to “special skill” tests, “wall tests”, and tests to the “tennis racket”, usually aiming at the success of a target. In “Wall” Testing, the tried-and-tested attempts to achieve, with kicks of the tennis racket ball, a specific target on the wall from a different distance with a particular or non-execution mode. The “Wandtest” of Majer P. (1987) as a “wall test” is a variant of the Dyer tennis-test that has been applied since 1935 to women, beginners and teenagers, and Ronnings Revision of Dyer-Test (Ronning, 1959).

In Wandtest, Forehand and Backhand are initially considered separately, for Weber & Hollmann (1984) require different techniques and tactics. Even the distances selected are 4, 8, and 12 meters. Another difference is the duration of the test. Each of the 3 Forehands in total and 3 in the Backhand tests lasts 30 instead of 60 seconds.

The students who participated in the test had to hit the ball from behind a line within an 8-meter distance from the wall on which there was another line (7 cm) drawn 91 cm from the ground. Each student was provided with a racket and two balls, and when the teacher blew the whistle they dropped the ball on the ground and hit it against the wall aiming above the line, using forehand and backhand technique. Three attempts of 30 seconds each were given, volley stroke was also allowed and the observer assisted verbally and motivated the doer counting only the consecutive attempts during which the doer hit the ball above the line and remained, of course, behind the 8-meter line (there was a basket containing extra balls, as well).

The best performance (more consecutive forehand and backhand strokes) achieved in the three attempts was taken into account and registered, both before and after the interventional research program. The reliability of the test was $r=0.90$ and its validity between $r=0.85-0.90$ (Majer, 1987).

After the end of the six-week period, a measurement of successful strokes was conducted for both teams. Mean scores of both teams were compared in order to find statistically important differences. According to the null hypothesis (H_0), there would not be statistically

significant differences between the scores of the two teams, while according to the alternative hypothesis (H_1) (one-sided), the experimental group (subjected to intervention) would show higher levels of successful shots compared to the control group (not subjected to intervention). If the null hypothesis was rejected and the alternative was accepted in its place, it could be inferred that the implementation of the new method is effective in the improvement of successful strokes (compared to no implementation at all).

The SPSS 20.00 statistic was used. There were 2 experimental groups: the reciprocal method group and the control group, 2 measurements: initial and final measurement, and gender: boys-girls with measurements in the measurement factor. Afterward, the independent samples t-test was used for the statistic analysis while for the reliability of the scales the Cronbach alpha factor was calculated. Statistically significant differences were observed in the values of the dependent variable between the two teams of students, and therefore, the conclusion that these differences were the outcome of the new teaching method was drawn.

According to the initial plan of the methodology, a premeasurement M1 was to be conducted in the experimental group through random sampling, and at the same time a premeasurement M3 in the control group.

However, based on this type of experimental planning, it was not certain that the second condition of within the teams experimental intervention would be met; that is, both teams would be equal to the values of the dependent variable from the beginning.

For that reason, a premeasurement was carried out at the beginning of the program. Students' scores in performing forehand & backhand skill trials were measured in terms of the number of successful strokes for both teams (experimental and control) before the implementation of the new method, as well as a repeated measurement after the implementation of the new method.

According to the final plan of the method, two measurements M1 & M2 would take place in the experimental group (subjected to intervention) through random sampling. At the same time, during the same time periods, two measurements M3 & M4 would be carried out in the control group (not subjected to any

intervention whatsoever). Measurements M2 & M4 took place after the end of the twelve lessons.

It would be preferred that the premeasurement showed that there are no significant differences in the values of the independent variable for the experimental and control group ($M1 = M3$).

If the new method of teaching these specific strokes were effective, it would be expected that students' scores of successful shots in the experimental group would be significantly higher than the ones of their counterparts in the control group ($M2 > M4$).

RESULTS

Data processing by applying the independent samples t-test in forehand & backhand stroke (before the implementation of the Reciprocal style of teaching) revealed that the power of the null hypothesis H_0 was higher than the value 0.05 ($p=0.498$), and therefore, the alternative hypothesis H_1 , i.e. the means of consecutive strokes were different between the two teams (Table 2 & Figure 1), was not accepted. Therefore, the two groups were considered equal before the implementation of the new teaching style.

The independent samples t-test in forehand stroke (after the implementation of the Reciprocal style of teaching) showed a great significant difference between the two means: 11.63 for the experimental group compared to 6.62 for the control group (Table 3). The power of the null hypothesis was smaller than 0.05 ($p=0.000$). Therefore, the alternative hypothesis H_1 was accepted; that is, there is a statistically important

difference between the means of consecutive strokes of the two teams. It is obvious that the experimental group showed a significant increase in the mean of consecutive scores over the control group which showed no improvement, since it lacked intervention.

Similarly the independent samples t-test in backhand stroke (after the implementation of the Reciprocal style of teaching) showed a great significant difference between the two means: 10.88 for the experimental group compared to 6.61 for the control group (Table 4). Finally it was found that the E.G. improved significantly the average consecutive strokes versus the C.G.

The above tables and graphs show the performances in forehand & backhand in the tennis before the R.T.S. and then. The present research has been found that performances constantly improved in both strokes.

DISCUSSION

The Reciprocal style of teaching was also studied by Goldberger, Gerney and Chamberlain (Goldberger & Gerney, The effects of direct teaching styles on motor skill acquisition of fifth grade children, 1986; Golberger, Gerney, & Chamberlain, The effects of three styles of teaching on the psychomotor performance of fifth grade children, 1982). In that study, learners formed pairs, and as one learner (doer) performed the task, the other (observer) gave specific feedback to the doer based on information provided by the teacher, in the form of a criteria sheet. When the doer completed the tasks, the doer and the observer switched roles and feedback was given from one learner to another.

According to Goldberger, Gerney and Chamberlain (1982), learners taught in the Reciprocal style of

Table 1: Sample by sex and group

| Control group (n=34) | Experimental group (n=68) |
|-------------------------|------------------------------|
| Males: 22 | Males: 33 |
| Females: 12 | Females: 35 |

Table 2: Descriptive Statistical Indicators before R.S.T

| Performance | Group | Number of students (N) | MEAN (M) | Standard deviation (SD) |
|---------------------------------|-------|------------------------|----------|-------------------------|
| Performance (number of strokes) | 1* | 68 | 6.25 | 3.45 |
| | 2* | 34 | 5.72 | 1.97 |

*1=experimental group, *2=control group - The criterion value t: t (49,642)=0.683, $P=0.498$
5% was chosen as significance threshold

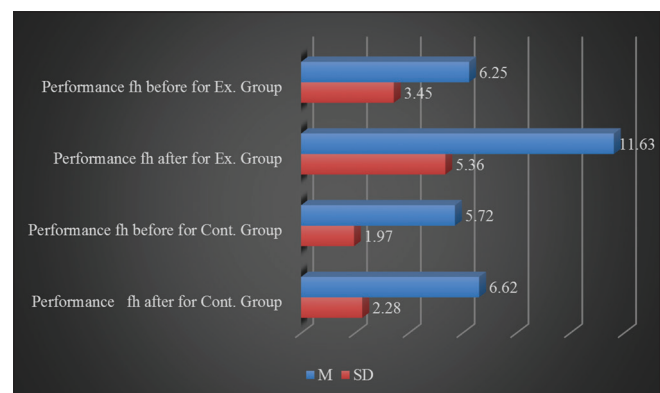


Figure 1: Performance Forehand before & after R.S.T for experimental and control group

teaching not only improved their skills performance but they experienced more interaction, empathy and encouragement from one another, as well.

The results of pairing students using different combinations and applying the reciprocal style were examined by Byra & Marks (1993). The results showed that the students gave more corrective and accurate feedback to the peer - students they were friends with, and respectively student-learners felt more comfortable receiving corrective feedback and guidance from friends than non-acquaintances.

In an attempt to examine how physical, cognitive and social learning could be facilitated in juggling, a study by Ernst and Byra (1998) was conducted. Sixty high school students participated in the study and 8 lessons took place in which the reciprocal style was used. Results indicated that all students in the experimental group improved their scores in skill performance from initial to final test. This was not the case for students in the control group. In the current study, the reciprocal style of teaching, a new teaching style with innovative strategies was implemented during tennis lessons in two different junior high schools of the City of Chalkida.

This research is placing emphasis on the correct implementation of a particular teaching method which falls within the scope of the Mosston's spectrum of teaching styles. The sample consisted of Junior High School Students of the city of Chalkida, the intervention was carried out by experienced PE teachers and it lasted relatively longer than the past ones.

An attempt was made to create the necessary conditions in order to carry out the activity in a spirit of cooperation and creativity and make it virtually more pleasant and joyful; as a positive side effect, more teaching time was saved for the optimum comprehension and acquisition of the desired skills. The goal of this research was to study the effect of an interventional program in teaching tennis as well as the implementation of the reciprocal style of teaching (RST) in students performing the forehand and backhand tasks.

For the first time, students came into contact with the reciprocal style, a completely new teaching strategy and consequently they needed more time to understand and perform the tasks; the new style is very distinct as

compared to the older one, which has been used for decades and is rather teacher-centered by asking the students to watch the teacher and perform the activities mechanistically. Undoubtedly, the international bibliography does not include any reference to the use of the reciprocal strategy in teaching tennis.

Analyses of our most important results have shown that the implementation of the new teaching method used in the intervention had very positive effects on the involved students. The RST contributed significantly to the improved performance of the students who belonged to the corresponding test groups. To be more specific, during the first phase, the students of the initial experimental RST groups exercised the forehand and backhand tasks by using the RST and the individual program; these students' performance improved more than the ones' who followed the typical command style.

The predominance of the RST in the results of both kinetic tasks denotes the efficiency of the "participatory observation" in the improvement and maintenance of kinetic tasks. The close relation between "performer" and "observer" possibly encouraged the students for more intensive efforts and better feedback and performance.

The findings of this research confirm the conclusion drawn by previous researches on the efficiency of the RST in learning kinetic skills to students (Goldberger, Gerney, & Chamberlain, 1982; Goldberger, 1983) and young adults (Beckett, 1991; Boyce, 1992). The present analysis' findings have shown that the RST can assist students to acquire kinetic skills in tennis. Also, the statistic figures present an impressive difference between the scores made by the RST style students and the ones following the mainstream school program.

In general, this research has proved the initial hypothesis stating that the scores and the final performance of the students participating in the group following the RST would be obviously higher than the ones of the students following the typical command style process.

Through the 8-meter wall toss test scores, we interpreted the real dimension of the intervention by pointing out the big difference between the initial and final scores gained by the RST group; in addition, the significant role of the program was confirmed by the comparison of the total scores marked down by each test group and the resulting remarkable differences.

The primary aim of this research study was to evaluate the reciprocal style in teaching the basic and typical tennis strokes to students aged 14-15 years, who had no previous experience in tennis. Students were organized in pairs with each one performing the task as in the Practice style, with the only difference being that he only interacted with the student observing him/her, while the observer provided individual feedback and only interacted with the teacher. The observer took on the role of the teacher and the doer the role of the student. Using a criteria sheet which described the exercise and highlighted the skill performance points, the student-teacher (observer) gave feedback to the student-performer (doer).

In order to be able to cope with the requirements of the role, the student-teacher had to observe the student who was performing the exercise, comparing the performance with the information in the criteria sheet, i.e. if the exercise was performed properly and when a problem arose, he/she had to interact with the teacher. During the intervention program backhand was taught in two ways, both with one hand and with two hands. The second way showed that backhand with two hands is clearly more effective in the initial learning phase as shown by the research of Mavvidis A, Konstantinou Ch., Grivas N. & Mantis K., (2013) in adult beginners.

Exercises were performed using criteria sheets designed by the teacher-researcher. On completion of the exercise, the doer and the observer switched roles. The research study was applied for 6 weeks (12 lessons) to students in the third year of High School, aged 14-15, in their school environment. Their performance in the Game against the wall was measured during the first and the last lessons of intervention, and more specifically in "Wandtest" of Majer P. (1987). Student subjects were randomly assigned to two groups (experimental group and control group). The experimental group was subjected to an interventional program in the independent variable which is the new method for strokes for six weeks, while the control group was not subjected to any intervention (not trained following the new teaching style).

The best performance (more consecutive forehand and backhand strokes) achieved in the three attempts was taken into account and registered, both before and after the interventional research program, in which the reciprocal style was evaluated in terms of how much

it contributed to learning and developing motor skills in tennis (Crespo, 1999; ITF, 2008) and specifically the two basic forehand & backhand strokes. The present study indicated that the new reciprocal style of teaching has a positive effect (an increase in the mean of consecutive strokes) regardless of gender. Moreover, a significant improvement in performance - score in the measured wall test ("Wandtest" of Majer P) was revealed, compared to the control group.

More precisely, the independent samples t-test through SPSS (after the implementation of the Reciprocal style of teaching) showed that, in terms of the two means, a very big significant difference between the two means (from 6.24 before the implementation of the reciprocal style to 11.62 for the experimental group compared with from 5.72 before the implementation of the reciprocal style to 6.61 for the control group).

The power of the null hypothesis was smaller than 0.05 ($p=0.000$). Hence, the alternative hypothesis H_1 was accepted, i.e. there is a statistically significant difference between the means of consecutive strokes of both teams (Table 2 & Figure 2). It is obvious that the experimental group showed a significant increase in the mean of consecutive scores over the control group, which showed no improvement without intervention. This study reinforces the opinion that the reciprocal teaching style is effective and its implementation can

Table 3: Descriptive Statistical Indicators after R.S.T

| Performance | Group | Number of students (N) | Mean (M) | Standard deviation (SD) | Std. Error (SE) |
|---------------------------------|-------|------------------------|----------|-------------------------|-----------------|
| Performance (number of strokes) | 1* | 68 | 11.63 | 5.36 | 0.920 |
| | 2* | 34 | 6.62 | 2.28 | 0.537 |

*1=experimental group, *2=control group- The criterion value t: $t(48,409) = 4.699, P < 0.001$
5% was chosen as significance threshold

Table 4: Performance backhand before & after R.S.T. for both groups

| Performances | M | SD |
|---|-------|------|
| Performance Backhand Before R.S.T. for Exper. group*1 | 6.06 | 3.01 |
| Performance Backhand After R.S.T. for Exper. group*1 | 10.88 | 5.91 |
| Performance Backhand Before R.S.T. for Contr. group*2 | 5.48 | 2.75 |
| Performance Backhand After R.S.T. for Contr. group*2 | 6.61 | 3.16 |

*1=experimental group, *2=control group

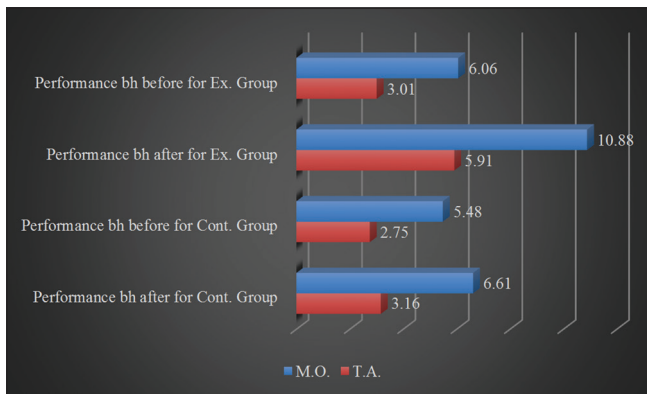


Figure 2: Performance Backhand before & after R.S.T for experimental and control group

contribute positively to the upgrading of Physical Education at Secondary schools in Greece.

CONCLUSIONS

The geographical and age (14-15 years old) restrictions of the selected sample do not enable us to draw general conclusions for the whole of the students' population.

This research was carried out in only two school units. In the future, it will be challenging to repeat it in a larger number of school units which would constitute a higher percentage of the total number of Junior High Schools nationwide. The extended comparison between the RST and the mainstream command style would give us more trustworthy results about the efficiency of RST in teaching tennis to the Junior High School students.

The present study indicated that the reciprocal style of teaching has a positive effect (an increase in the mean of consecutive strokes) regardless of gender. Moreover, a significant improvement in performance - score in the measured wall test ("Wandtest" of Majer P) was revealed, in relation to the control group.

Both students who provided and students who received feedback had much to gain, confirming results of other studies. The potential of students providing other students with feedback led to a greater number of proper task performance, more praise, resulting in greater emotional engagement of students.

Students, by learning to receive and give feedback, broadened their relationships, thus felt comfortable with each other and enriched their personal image since most decisions (compared to other methods)

were transferred from the teacher-researcher to the student. Finally, the reciprocal style seemed to be more effective in promoting students' cognitive and social learning than conventional methods of instruction. In the reciprocal style of teaching, a considerable power is granted to the student by the teacher, feedback. The reciprocal style is suitable for improving students' social behavior, since it is obvious that in order to give and receive feedback from a classmate, a student should be interested in his/her classmate and have all the qualities needed for proper communication.

To recapitulate, the reciprocal style of teaching is more effective in the first stage of acquiring motor skills or "cognitive stage" where direct feedback is crucial, especially in teaching a motor skill requiring high "organizational complexity" such as forehand or backhand in tennis. As a teaching style, the reciprocal style can offer variety and make the lesson interesting, shapes the socio-emotional world of students, and offers Physical Education teachers alternative - effective ways of teaching complex skills.

The duration of the intervention and its implementation to all test groups by the same researcher have had possibly negative effects on drawing clear conclusions. In general, intervention projects should last longer and give time to shaping complete and clear perceptions which would lead to safer conclusions. It is proposed to increase the time of experimental implementation so as to be able to make a better assessment of the positive effects of the RST according to the examined variables. However and in the frame of a stricter methodological approach, it is rather impossible for any researcher to control all the potential threats to a research which is carried out in real life conditions and not in the "technically" controlled laboratory conditions.

The field research was selected as our tool of research because it consists a really significant opportunity to verify the validity and efficiency of a theory or hypothesis. In a future attempt, it is advisable to select a larger size of sample, with different qualitative characteristics like sport experience, nationality, social and economic status etc. Also, there should be tested the link and the contribution of the RST to out of school or high performance sports, to sports of different skills and to other school subjects as well.

Finally, the statistical results and the appeal of the program to the students indicate that there should be

a complete four-month tennis course adjusted to the facilities offered by each school unit and incorporated in the school curriculum and supported by training material accessible to any PE teacher.

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