Effects of not Preferred Arm Exercises for Activation of the Movement Program in Development of the Accuracy of Some Basic Skills for Ground Tennis Players Class 10-12 Years

Wisam Salah, Saheb Abdulhussein, Marwa Ali

College of physical education, Karbala university, Iraq
College of physical education, Karbala university, Iraq
College of physical education, Karbala university, Iraq
wisam_aldulimy@yahoo.com

ABSTRACT

The problem of research has been centralized in that most team players of Karbala Governorate or the class (10 – 12) years are suffering a weakness in performing of some basic skills in tennis , in spite of the correct building of movement program of the studied skills , that is why the researcher thought of an attempt to activate the movement program of some basic skills of ground tennis through not preferred arm exercises and to get benefit of learning effect transforming phenomenon to the preferred arm in order to form some required responses through playing variations for Ground tennis players , the two goals of research are Identifying of Effects of not preferred arm exercises for activation of the movement program in development of the accuracy of some basic skills for ground tennis , and priority with one arm or both arms for activation of the movement program in development of the accuracy of some basic skills for ground tennis players. The researcher used the experimental methodology in designing of (the two efficient groups of pre and post test) in order to conform the nature of the problem and to achieve the goals of research, the sample of research has been represented by the whole research community, the players of Karbala Team in age of 10 – 12 years old for 2012 – 2013, they are (10) players.

Keywords: **arm exercises, movement program, the accuracy of some basic skills**

1. Introduction

Movement learning is considered as one of the important and main sciences with a direct relationship with physical education accomplishments , which motivated many scientists and

specialists to present scientific studies and researches that aim to develop movement learning in all sport games, since that movement learning is one of the sciences which played a big role in development of sport levels and skills of players , though transforming of learning effect , positive effects are appearing in development skillful abilities which has been proved by researches and studies , in sport , treatment or healthy fields , where many studies in transforming of learning effect from a sport activity into another activity. Also in transforming of learning from a part in body into another part opposite to transforming between bodies parts (Yaarub Khayoun, 2002).

Ground Tennis is considered as one of racket games whose skills are of open environment , where each skill has its own movement program , the main movement program of each skill includes many branch movement programs that differ in their (strength , speed , direction) such way , there would be many responses in the unique movement program of each skill of ground tennis skills , movement program is an important and a basic goal in movement learning for preparing of athletes and forming of situations.

similar to competition circumstances which are characterized with speeds , times and distances , here the importance of research is appearing in not preferred arm exercises for activation of movement program through increasing of movement motives of the learner and getting benefit from learning effect transforming for developing of the accuracy of some basic skills of ground tennis students through the presence of researchers in teaching and training of most racket games activities , especially ground tennis in consideration that they are players and coaches in the game.

it is found that most players of the governorate are suffering a weakness in performing of some basic skills in ground tennis , in spite of the correct building of movement program of the studied skills , that is why the researcher thought of an attempt to activate the movement that is why the researcher thought of an attempt to activate the movement program of some basic skills of ground tennis through not preferred arm exercises and to get benefit of learning effect transforming phenomenon to the preferred arm in order to form some required responses through playing variations for Ground tennis players.

1. 2 The two goals of the research:

1. Identifying the effect of not preferred arm exercises to activate the movement program in developing of the accuracy of preferred arm performance of some basic skills for Ground tennis players.

2. Identifying the priority of one arm or both arms exercise to activate the movement program in developing of the accuracy of some basic skills for Ground tennis players.

1.2 Research course and field procedures:

1. 2 .1 Research course:

The researcher used the experimental course in designing of (the two efficient groups with pre and post test) since it fits the nature of problem and achieves the goals of the research .

1. 2. 2 The community and sample of research:

The researcher has been represented by whole research community , Karbala team players 13 -12 years old for the year 2012 , they are (10) players , this means that the researcher has used the extensive exclusion method for all community individuals , they had been divided through plot into two groups , the first is experimental includes (5) players , while the second is disciplining and it includes another (5) players , in order to ensure the efficiency of both groups , the researcher used MAN WITNI Test where results have showed no spiritual differences between the two groups as in Table 1.

Table 1. Shows the efficiency of the two research groups

Statics Indicators / Research Variables	Unit	Value of MAN WITNI	Indicator Level	Indicator Type
Serve	Degree	8	0.73	Unspiritual
Forehand	Degree	6	0.55	Unspiritual
Backhand	Degree	7	0.67	Unspiritual

N1 = 6   N2 = 6   Indicator Level (0.05)

1. 2. 3 Tools and devices used in research:
1. (2) Tennis Playgrounds.

2. (10) Tennis Rackets.

3. (30) Tennis balls.

4. (5) Color Magic Pens.

5. (2) rolls of Color adhesive tapes.

6. (2) Chinese timing watches.

7. Tests.

8. Form.

9. Data recording form.
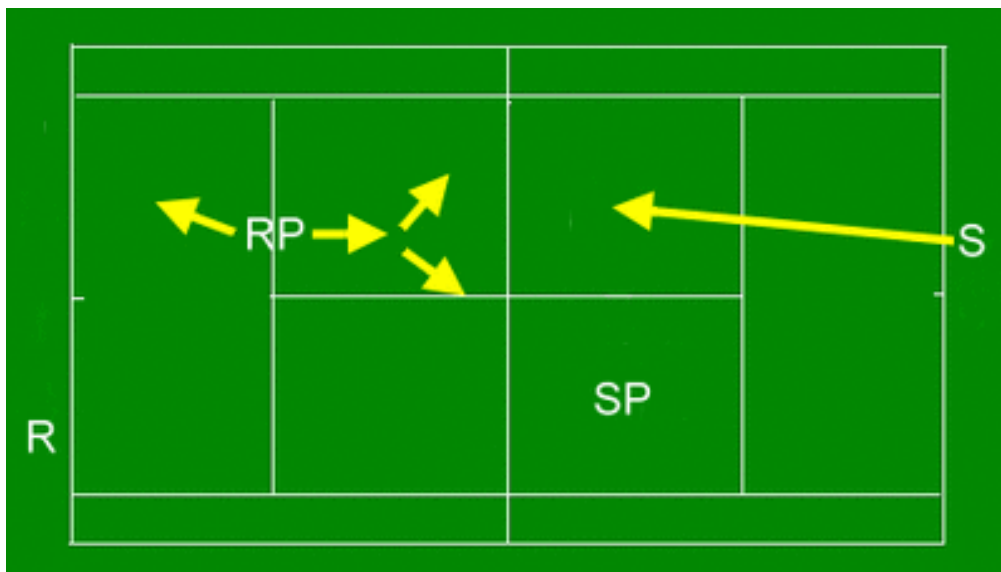
1. 2. 4 Skills of study:
The researcher has studied the following skills (serving - back hand -forehand).

1. 2. 5 Devices used in research:
<u>First Test:</u> Serving skill accuracy test in ground Tennis.

HWHITE TEST:

- The purpose behind the test is: Measuring of serving accuracy.

- **Used Tools:** Legal Tennis network, Legal Tennis Playground.

Illustrates serving test in ground tennis

Description of Performance: The testing player stands behind sending base, then he stands serve ten sequent balls on the specified goals in the middle of the opposite playground, on a condition that all balls should pass between the network and robe, in a way the player is trying to get a higher score.

Scoring:
- ☒ Balls touching the network or robe are not accounted as attempts and they should be tried another time.
- ☒ Balls passing over the robe are accounted as attempts and they are given the score even they fall in any goal.
- ☒ Any ball is correct with a value of score in the area it falls into.
- ☒ The score of the player is that scores group the player gets from the ten attempts.

- ☒ Highest score is (60).

Second Test : Skillful Performance test of fore and back hand by balls shooter device (Oday Mahdi 2010).

- The purpose behind the test (Measuring of fore and back hand skills).
- Tools :

1. (40) Tennis Rackets

2. (50) Tennis balls.

3. (3) Balls shooter devices.

Description of Performance:

The test includes the standing of the desired testing player in the area inside tennis playground and giving him (5) experimental attempts after making of warming to identify the way of performing of test , when giving of instructions and guidance about test by the testing teacher , the ball is kicked towards the player by balls shooting device on a condition that the ball should fall after passing the network at receiver playground and the testing player starts to return the ball through using of front kick and then returning the ball through using of back kick , then returning the ball with the back kick , besides speed of balls shooting device has been fixed on level No. (4) which a less ball speed than middle and over slowly speed , speed numbering in the device from (1 – 10) , the device has no indicator of speed measuring (speed of ball setting out), there are only numbers , speed of ball setting out could be accounted by using the movement analysis which is not a topic in our research , the corner of kicking m since the device has various corners of ball kicking , the researcher chose the straight kick in a vertical direction towards the net a way the ball collision would be in the middle of intended to be taught player's playground , so we could fix the speed on No.(4) and fixing of the corner for preventing of new variations entry and to facilitate teaching process during the skillful performance of the forehand and backhand , with ensuring of correct technique of the skillful performance of both stork.

- The ball should pass the network and falls on the ground inside the opposite playground the technique of performance should be correct.
- **Evaluation :**
- **1.** Each player has to do (3) attempts of forehand and (3) attempts of backhand, then the best attempt is taken in consideration.

2. Three experts * made the skillful performance of each student and giving the mark of (10) marks, then taking the arithmetic mean been taken of the three experts, forehand and backhand.

3. The evaluation of both experimental groups and disciplining has been made.

4. The evaluation of both pre and post tests has been.

5. Skillful performance of the players had been recorded, converted to CD and then distributed to the experts for evaluation.

2. Methodology

The researcher applied a group of exercises through using of preferred and not preferred arm on the experimental group, while the disciplining group has exercised only on preferred arm in two teaching units per a week for (8) units , the time of teaching unit was 90 mints , the time of teaching unit had been divided into the preparatory part (18mints) , main part (60mints) and the final part(12mints) , the teaching methodology started on 13/12/2012 and ended on 22/1/2013 , it includes various exercises for serving of forehand and back through using of different directions of the unique exercise ,where the duration of not preferred arm in the experimental group is (20) mints of the main part per a teaching unit , the exercises were depending on the usage of parameters of movement program by using the different shapes of skill as it is shown in the appendix (1).

2.1 Statistical tools:

The statistical package (SPSS) had been used (Mohammed Masalah 2003) in analyzing of research data as follows.

3. Results & Discussion

After collecting of pre and post data of skillful tests and of the two research groups, in order to describe the results of sample individuals, the researcher statistically treated the data through the using of central tendency and scattering standards, in order to identify the spirituality of differences between pre and post tests and the two research groups, the researcher used WILKONSON Test as it is shown in both tables (2) and (3).

Table (2) Shows the values of arithmetic mean, Standard Deviation, WILKONSON Values accounted for pre and post tests and for two experimental groups

skill	Pre Test		Post Test		Accounted Wilconson Value	Indicator Level	Indicator Type
	st	m	st	m			
serve	22.2	0.5	36	2.62	2.22	0,04	spiritual
forehand	27.2	0,95	40.2	1.5	2.23	0.03	Spiritual
Back hand	25.2	2.75	39.2	0.5	2.32	0.03	spiritual

N = 5   Indicator Level (0.05)

By viewing table (2) which shows the values of arithmetic mean Standard Deviation , WILKONSON Values accounted for pre and post tests and for two experimental groups , arithmetic mean of serving in pre test has reached (22,25) and (0.5) , after making of post test, arithmetic mean of serving has reached (36) and (2.63) , when we note these indicators , we find them differ in value which indicates that there are some differences between both tests , in order to explain these differences , the researcher used WILKONSON test whose value was (2.22) for indication level of (0.04) which refers that there is a spiritual difference between both tests and for the side of post test . Arithmetic mean of front kick in pre test (27.25) and Deviation.

Table (3) Shows the values of arithmetic mean, Standard Deviation, WILKONSON Values accounted for pre and post tests and for two disciplining group

Skill	Pre Test		Post Test		Accounted Wilconson Value	Indicator Level	Indicator Type
	st	m	st	m			
Serve	22.25	0,57	30.2	2.75	2.23	0,04	spiritual
forehand	27.6	2.07	33.4	0,54	2.03	0,03	spiritual
Backhand	25	0.70	33	0.70	2.04	0,04	spiritual

N = 5 Indicator Level (0.05)

The researcher ascribes the spirituality of differences between pre and post tests of the group to the exercises through the using of preferred and not preferred arm , variations in skill forms trough the using of learning methods matching open skill type in tennis , where experimental group individuals have practiced some sequences of skill forms by motivating of both parties in the teaching unit , variation in using of practicing of skillful forms with different measurements (strength , speed and distance) has helped to execute the response correctly , (Schmidt) mentioned that learning in learners are practicing many variations in the exercise of skillful forms will have the power to realize motives they face , So activation of learning process of these skills would be made (Richard A. Schmidt Craig A. Weisberg, 2000) which helped the learner to prepare fast movement programs to face changing of playing conditions , where former experiences for performing in a short period as a result of effective continuous training , besides it enables the learner to face the hard and complicated circumstances in a game characterized with complication and speed , while the development happening in disciplining group was as a result of practicing of the course prepared by the coach and by continuous regular training.

After collecting of post data of skillful tests and of the two research groups , in order to describe the results of sample individuals , the researcher statistically treated the data through the using of central tendency and scattering standards , in order to identify the spirituality of differences between the two groups in the post test , the researcher used MANWITNI Test as it is shown in both table (4) .

Table (4) Shows the values of arithmetic mean, Standard Deviation, MAN WITNI Values accounted for post tests and for experimental and disciplining group

Tests	Experimental Group		Disciplining Group		Accounted MAN WITNI Value	Indicator Level	Indicator Type
	st	m	st	m			
serve	36	2.62	30.2	2.75	0,00	0,00	spiritual
forehand	40.2	1.5	33.6	0.54	0,00	0,00	Spiritual
Back hand	39.2	0.5	33	0.70	0,00	0,00	spiritual

N1 = 5   N2 = 5 Indicator Level (0.05)

From showing and analyzing of skillful tests results in post test , which had been explained through table (6) , it became clear that there are spiritual differences between the two research groups for the side of first experimental group , researcher ascribes these differences in development to the following. Concentrating on using of different training tools accompanied with the development of the most modern teaching means which could change the nature of motives , the benefits of exercises in both parts is that the learner of these exercises identifies various conditions of exercise applications, which makes learners activating in the actively performing of skill in addition to providing of learners with knowledge and physical experiences about the environment of playing , competition and teaching them how to convert the performance in a way fitting the environment , variations and courses of playing (Ahmed Atshan, 2010) .

The researcher thinks that training with both arms has helped the learner to provide various movement programs for the skill and for both arms , investing of learning effect transforming principle has helped the learner to transform the information from not preferred arm into preferred arm , subsequently , it participated in building of movement programs for many motives , training through the using of not preferred part will increase the efficiency of preferred part, there is a public concept is that the training and teaching of a body part for a particular movement performance will increase the ability of performance in the other part of the body (Wajeeh Mahjoub, 2001).

4. Conclusion

Preferred Training with not preferred arm helps to learn some basic skills in Tennis playing with the preferred arm. Training with Preferred and not preferred arm helps to provide many and various movement programs which help the learner to face all playing variations. Training with preferred and not preferred arm helps to activate the movement program of the studied skills. Training with preferred not preferred arm has a big effect in developing of some basic skills in ground tennis.

References

Abdulsatar Al – Dhamad (2000) : Physiology of mental operations in sport , 1st Ed. , Amman , Dar Al – Fikr for Press and publishing.

Afaqat, K.(1997). Transforming of various learning effect between skills in rhythmic Gymnastics -Master Thesis-College of Physical Education- University of Baghdad.

Affaf, A. (1990). Teaching for learning in Physical and sport, Axandaria Al-Maaref Foundation.

Ahmed, A. (2010). The effect of correspondent trainings for publicizing of movement program of passing and the activity of its performance of young players in handball , Master Thesis – College of Physical Education – University of Babylon.

Fakher. A, (1986). Learning and its theories, 6th Ed., Beirut, Dar Al – Elm for Millions.

Marin, G & Pear, J. (1992). What it is and how to do it, Englewoodcliffs, N, J, Prentice Hall.

Mohammed, N. (2003). Guidance Statistics in Physical and sport Education, 1st Ed. , Cairo , Dar Al – Fikr Al – Arabi .

Oday. M, (2010). The effect of Using of Balls Shooting Device in learning of front and back kick skills.

Qasim, L. (2005). Subjects id movement learning, Baghdad.

Raed, M. (2002). Some indicators of Aero and non Aero ability and their relation with the accuracy of associated basic skills performance in racket games, Master Thesis – College of Physical Education – University of Babylon.

Richard, A & Schmidt, C. (2000).Motor Learning and Performance, Second edition, Human Kinetics.

Samer, Y. (2004). The effect of teaching course for publicizing of movement program in teaching of passing and shooting skills in handball and movement acting for young players, Master Thesis – College of Physical Education – University of Baghdad.

Schmidt, A. & Timothy, L.(1999.) Motor control and learning, Human Kinetics.

Wajeeh, M. (2001). Learning and scheduling of Physical Training, 1st Ed., Baghdad Dar Al – Fikr for Press and Publishing.

Wisam, S. (2008). The Variation of practicing for publicizing of movement programs and is effect in learning of some basic skills for young Badminton, Master Thesis – College of Physical Education – University of Babylon.

Yaareb, K. (2002). Movement Learning between concept and application, 1st Ed. , Baghdad , Al – Sakhra Office for press.

Appendix (1)
A sample of teaching Unit of experimental Group with preferred and not preferred arm

Parts of Teaching Unit	Used Exercises	Frequency	Notes
Preparing Part (18 mints)	Trotting- trotting with sequent rounding of the two arms – Normal walking (8 mints). * Swedish exercises for all body parts including stopping , walking , preparing of working muscles through the using of rackets (10 mints) .		Giving of back immediate nutrition and about warming and body muscles preparing
Main Part (60 mints)	Making of serving (right and left) using straight ending skill. Making of forehand with the partner from right . Making of forehand with the partner from left . Making of forehand with the partner from right. Making of forehand with the partner in a diametric direction from right and left Making of serving (straight) skill from both playground sides. Making of backhand with the partner from right. Making of back hand with the partner from left. Making of back hand with the partner in a diametric direction from both sides of the playground. Making of serving skill with the preferred and not preferred arm from both sides of the playground. Making of forehand skill with the not preferred arm from various directions with the partner. Making of back hand skill with the not preferred arm from various directions with the partner.	30 30 30 40 40 30 30 30 30 30 15 30	Giving of back immediate and continuous nutrition and continuous correcting of performance of technical errors and determining of strength and weakness of the learner .
Final Part (12 mints)	- Relaxation Game. - Exercises Calming body muscles down		