

## **Training program accompanied by an electronic scheduled to evaluate the performance of some volleyball skills using a qualitative analysis**

**\*Dr. Ahmed Khodary Mohamed Ahmed**

### **Introduction and Research Problem**

A novice Learner, one of the pillars of the educational process, cannot be imagined performing skill in an artistic ideal error-free way. The teacher's duty is to find out error points in learner's performance and directly handle them. The teacher and couch should have the ability of objective gaze observance which helps them succeed in handling process (2: 34-54).

Performance appraisal process which is regulated by scientific evaluative methods is as important as understanding technical aspects of performance. Without evaluation and measurement process, a teacher or coach cannot start teaching learners or handle what would happen to their performance from mistakes that hinder their progress in learning the skills. Qualitative analysis of performance is an objective

method of evaluation, development and enhancement through identifying accurate information about performance by model of "Beverdges & Gangstead" that depends on observance of temporal aspects of performance stages (preliminary, main, final), and model of "Hay & Reid" that distinguish between qualitative and quantitative analysis (12:85) (4:42).

While teaching volleyball curriculum to female students of teaching department, the researchers noticed that students' performance of some skills (under hand passing, higher serve, and spike), that had been previously studied at first year, has a lot of mistakes despite following many steps to improve this performance and correct mistakes. Their performance doesn't improve as required, in addition to the difficulty of learning and excellence. This is

---

\* Lecturer Department of Sports Training and Movement Science- Faculty of Physical Education- Assiut University.

due to students' lack of awareness of skills details, lack of objective methods to assess the technical performance and the traditional methods that aren't objective in correcting mistakes and non-dependent on modern technological media, moreover the quality of tests that are applied to evaluate research skills in volleyball.

Therefore, the researchers realized the necessity of designing technical performance appraisal forms which will help them build educational technology program in order to activate the theoretical aspect of this study. This is an attempt to know the effect of this program on the technical performance of volleyball students in teaching department. Since educational technology can provide audio and visual triggers, instant feedback and active participation of the learner in the learning process.

### **Research Target**

The research aims to design a training technology program using qualitative analysis to handle performance mistakes in some basic volleyball skills (under hand passing, higher serve, and spike) of students in teaching department by:

1- Determining the technical specifications for performance stages of basic skills (under hand passing, higher serve, and spike) using "Beverdges & Gangstead" model.

2- Identifying the most influential and continuous mistakes on the technical performance of basic skills (under hand passing, higher serve, and spike) using "Beverdges & Gangstead" and "Hay & Reid" models for qualitative analysis.

3- Formulating performance appraisal form to evaluate some basic skills (under hand passing, higher serve, and spike)

4- Proposing some special exercises that can handle the most influential and continuous mistakes when teaching some basic skills (under hand passing, higher serve, and spike)

### **Questions and Hypothesis of Research:**

1- What are the technical specifications for performance stages of basic skills (under hand passing, higher serve, and spike) using "Beverdges & Gangstead" model?

2- What are the most continuous and influential mistakes on the technical

performance of basic skills (under hand passing, higher serve, and spike) using "Hay & Reid" model?

3- There are statistically significant differences between average of pre and post measurement grades of research sample in performing basic skills (under hand passing, higher serve, and spike) in volleyball in favor of the post measurement.

**Plan and Procedures:**

**The Used Methodology:**

The researcher used descriptive methodology by "case study" to proceed quantitative analysis and build the proposed educational technology program, and then experimental methodology by per set experimental design using both pre and post measurement because of its suitability to nature of the research.

**Research Sample and Community:**

Research community includes third year students (teaching department) of volleyball at Faculty of Physical Education for the academic year (2012-2013) totaling (32) student. The research sample was selected in a deliberate way by (20) student.

**Coherence of the Sample:**

Coherence among members of the research sample was carried out in key variables (Age-Height-Weight) and skill variables.

**Data Collection Tools:**

1- Devices and Tools:

- Video camera – computer – data show - Restameter device to measure height in centimeters – medical balance to measure weight in KGS.

2- Performance Appraisal Forms of the skills under research using Hay & Reid model.

3- The proposed Technology Program

The steps of designing performance appraisal forms of the skills under research using Hay & Reid model:

Step One: Content analysis to determine the specifications for the technical stages of the skills under research using Beverdges & Gangstead model (designed by the researcher).

According to scientific references and previous studies (1), (14), (7), (9), (3), (5), (11), (13), the technical performance of the skills under research has been described using Beverdges & Gangstead model. The performance

details of the skills are as follows:

**Table (1)**  
**Qualitative Description and Dynamic Track of Common Body Parts in the Performance of Skill of under hand passing**

Body Components	Stages		
	preliminary	main	final
<b>Head</b>	Raised and looking to foreground in the direction of the ball	Raised and looking to foreground	Raised and looking to foreground to the ball
<b>Shoulders</b>	Parallel to ground and inclined to instep of front foot	Pulling shoulders forward and inside	Parallel to ground and heading to the top
<b>Right Elbow</b>	Stretching elbow forward down close to knee, and away from left elbow as much as shoulders distance so that upper arm is next to body and forearm is in front of body and parallel to ground	Pulling stretched elbow and expanding forearm out "Medial Area"	Moving Elbow in the direction of ball to the top
<b>Right Hand</b>	Free forward and away from left hand as much as shoulders distance	Place palm on palm of the other hand, and bend the rest down with joining thumbs pointing to foreground and out	close to the left hand to foreground of the body
<b>Trunk</b>	Vertical and inclined slightly forward	Stretching trunk to the top	Stretching trunk to make square angel with pelvis
<b>Right Knee</b>	Slightly bending knee to be behind right player and vice versa	Stretching knee with obtuse angel	Stretching knee to get standing position
<b>Right foot</b>	Instep points to foreground, and is away from other foot as wide as pelvis	Pushing by foot to get square angel with ankle	Stretching ankles to stand on instep

**Foolow Table (1)**  
**Qualitative Description and Dynamic Track of Common Body Parts in the Performance of Skill of under hand passing**

Body Components	Stages		
	preliminary	main	final
<b>Left Elbow</b>	Stretching elbow forward down close knee and away from right elbow as much as shoulders distance so that upper arm is next to body and forearm is in front of body and parallel to ground	Forward to left player and away from left foot as wide as pelvis	Moving elbow in the direction of the ball to the top
<b>Left Hand</b>	Free forward down and away from right hand as much as shoulders distance	Place palm on palm of the other hand, and bend rest down joining thumbs pointing to foreground	Close to right hand to foreground of the body
<b>Left Knee</b>	Slightly bending knee to be to foreground of right player and vice versa	Stretching knee with obtuse angle	Stretching knee to get standing position
<b>Left Foot</b>	Instep points to foreground, and is away from other foot as wide as pelvis	Pushing by foot to get square angle with ankle	Stretching ankles to stand on instep
<b>Touch Ground</b>	By both feet	By both feet	Pushing to stand on both insteps

**Table (2)**  
**Qualitative Description and Dynamic Track of Common Body Parts in the Performance of Skill of higher serve**

Body Components	Stages		
	preliminary	main	final
<b>Head</b>	Forward and looking to the direction where the ball should be directed	Vertical and looking to foreground and above in the direction of ball line	Vertical and looking to foreground
<b>Shoulders</b>	Parallel to ground	Twisting shoulders to the right direction and in side of the striking hand of the right player	Parallel to ground and heading inclined to foreground

**Foolow Table (2)**  
**Qualitative Description and Dynamic Track of Common Body Parts in the Performance of Skill of higher serve**

Body Components	Stages		
	preliminary	main	final
<b>Right Elbow</b>	Bending elbow so that upper arm with forearm make square angel, and upper arm with shoulder make straight angel	Bending elbow to make acute angel	Is fully straight and slightly inclined to foreground next to the body
<b>Right Hand</b>	Palm of hand is directed to foreground	Moving from back to foreground to meet ball with palm which is hollow in shape of the ball	Following behind the ball to get above foreground inclination
<b>Trunk</b>	Straight and vertical on pelvis	Bowing to twist and little roll to the right	Bending trunk to foreground to get above foreground inclined position
<b>Right Knee</b>	Slightly bending knee	Stretching knee to the top with obtuse angel	Stretching knee to get straight angel
<b>Right foot</b>	Is behind right player along heel of front left foot and pointing to foreground, feet are as wide as pelvis, foot makes square angel with leg	Instep pointing to foreground	Instep pointing to foreground
<b>Left Elbow</b>	Upper arm makes straight angel with forearm to foreground of shoulder	Raising elbow above to make obtuse angel with shoulder	To foreground of body and slightly bending
<b>Left Hand</b>	Holding ball to foreground of shoulder	Shooting ball to foreground of shoulder close to body	Inclined to foreground
<b>Left Knee</b>	Slightly bending knee	Stretching knee to the top with obtuse angel	Stretching knee to get straight angel
<b>Left Foot</b>	To foreground of right player and pointing forward, feet are as wide as pelvis, foot makes square angel with leg	Instep pointing forward and body weight is standing on it	Instep pointing forward and body weight is standing on it
<b>Touch Ground</b>	By both feet, body weight is distributed equally on both feet	Right foot stands on instep and the left one on ground	Back one push to stand on instep

**Table (3)**  
**Qualitative Description and Dynamic Track of Common Body Parts in the Performance of Skill of spike**

Body Components	Stages		
	preliminary	main	final
<b>Head</b>	Vertical and looking in the direction of ball coming from the ready player	Slightly inclined to back and directly looking to ball	Vertical and looking to foreground and top in the direction of ball pass
<b>Shoulders</b>	In horizontal pause and following trunk movement	Twisting shoulders to back	In horizontal pause and following trunk movement
<b>Right Elbow</b>	Directed to down in square angel	Bending elbow to be above shoulder level and directed to foreground	Semi-stretched in front of body
<b>Right Hand</b>	Moving from back to foreground high with full force along thighs	Bending striking arm and moving it from back to forward in direction of the ball - Touching ball with open back of the hand (palm) not with fingertips, on the back half of ball in front of striking shoulder. - Bending wrist of striking hand back front down. - Full stretching of hand	Pulling forearm down close to body
<b>Trunk</b>	Slightly inclined to foreground	Slight bow backward with twisting trunk in direction of striking hand	Slightly inclined to foreground
<b>Right Knee</b>	Slightly bending knee	Bending knee so that leg makes square angel with thigh	Bending knee to absorb the power of body weight during landing

**Foolow Table (3)**  
**Qualitative Description and Dynamic Track of Common Body Parts in the Performance of Skill of spike**

Body Components	Stages		
	preliminary	main	final
<b>Right foot</b>	Pointing to foreground and behind left leg of right player - When approaching, weight of player body moves from behind the heels to feet and then instep	In Air, making square angel with leg and pointing to down backward	Pointing to foreground
<b>Left Elbow</b>	Is directed to down with semi square angel	Stretched wit semi straight angel in front of the body	Semi stretching in front of the body
<b>Left Hand</b>	Moving from back to foreground high with full force along thighs - When lifting, raise arm highly freely	Moving the free arm in square angel in front of body to keep balance of the body in the air	Pulling forearm down close to the body
<b>Left Knee</b>	Slightly bending the knee	Bending the knee so that leg makes semi square angel with thigh	Bending knee to absorb the power of body weight during landing
<b>Left Foot</b>	Pointing to forefront and is prior to the right foot of the right player	In Air, making square angel with leg and pointing to down backward	Pointing to forefront
<b>Touch Ground</b>	Two steps with feet; one is short, the other is long, with setting one feet next to the other to create a movement jump - feet and knees are stretched at the moment of jumping	Both feet are in air and hit the ball while flying next to side line	Soft landing on ground with flexible feet

### **Step Two: Observing Performance and Identifying Errors:**

We identified the technical errors that affect the performance of technical performance stages of skills under research

### **Step Three: The relative Importance of technical performance stages of skills under research**

I identified the importance of technical performance stages of skills under research (under hand passing, higher serve, and

spike) by distributing (15) grade on performance stages of down passing, top passing skills, and (20) grade on massive hitting skill according to the relative

importance of every stage. We calculated arithmetic average of the grades of every stage and the nearest degree. Table (4) shows that:

**Table (4)**  
**The Relative Importance and Degrees of Technical Performance Stages of Skills under Research According to Experts' Views (N=10)**

Skill	Technical Performance Stages	Percentage	Grade
under hand passing	Preliminary	33.4%	5
	Main	53.3%	8
	Final	13.3%	2
Sum		100%	15
Higher serve	Preliminary	33.4%	5
	Main	46.6%	7
	Final	20%	3
Sum		100%	15
spike	Preliminary	30%	30
	Main	42.5%	42.5
	Final	27.5%	27.5
Sum		100%	20

**Step Four: Determining the Grade of Error Impact:**

I determined the significance of every error in performance stages with deletion and modification through calculating standard error of ratio and identifying extent of extent of significance at level (0.05).

I calculated the grades of impact of technical

performance stages errors of technical stages of skills under research through identifying the relative importance of technical stages of skills under research, then calculating the grade of error impact in order to evaluate and make qualitative and quantitative judgment on form variables. Tables (5)(6)(7) shows that:

**Table (5)**  
**The Relative Importance and Degrees of Technical Performance Stages of under hand passing**

(N=12)

Stages	M	Performance Stages and its Continuous and Influential Errors	Probable Arithmetic Average	Percentage	Grade
Preliminary	1	Not Looking to the Direction of Ball Pass	6.5	23.8	1.2
	2	Not Bending Trunk Slightly Forward	5.6	20.60	1.02
	3	Not Stretching Elbows Front Down the Body	5.2	19.10	0.96
	4	Not Twisting Elbows out to Clarify Forearms	5.2	19.10	0.96
	5	Excessive Bending of Knees	4.7	17.4	0.86
	<b>Sum</b>			27.2	100%
Main	1	Vertical Trunk, not Bent to Foreground	6.75	23.8	1.9
	2	Bending elbows at the moment of ball passing	6.5	22.8	1.8
	3	Not facing ball with both hands at forearm area	5.6	19.7	1.6
	4	Not stretching knees and standing on insteps while passing	4.9	17.2	1.4
	5	Moving hands to the top	4.7	16.5	1.3
	<b>Sum</b>			28.45	100%
Final	1	Arm movement is upper than shoulder level	5.6	51.8	1.04
	2	Not Pushing to stand on insteps	5.2	48.2	0.96
	<b>Sum</b>			10.8	100%

Table (5) shows percentage and grades of impact of technical performance stages errors for down passing skill. Sums of probable arithmetic average in preliminary, main and final amount to 27.2, 28.45, and 10.8 respectively. The percentage ranges between (16.5%- 24.17%), and estimated degree ranged between (0.96, 1.9).

Arithmetic Average (AA) =  $\frac{\text{Sum of estimation balance for each term}}{\text{Sum of estimation balances}}$

Sum of estimation balances

Percentage =  $\frac{\text{Probable Arithmetic Average (AA)} \times 100}{\text{Sum of (AA) for each stage}}$

Degree of each error =  $\frac{\text{AA} \times \text{total degree for stage}}{\text{Sum of (AA) for each stage}}$

**Table (6)**  
**The Relative Importance and Degrees of Technical Performance**  
**Stages of higher serve (N=12)**

Stages	M	Performance Stages and its Continuous and Influential Errors	Probable Arithmetic Average	Percentage	Grade
Preliminary	1	Not Looking to foreground in the Direction of rival field	6.5	24.17	1.2
	2	Twisting trunk in the direction of hand of striking arm	5.6	20.82	1.05
	3	Not directing ball to striking arm	5.2	19.34	0.97
	4	Palm of striking hand is not directed to foreground and net	4.9	18.22	0.91
	5	Not opening feet behind pass line	4.7	17.45	0.87
	<b>Sum</b>			26.9	100%
Main	1	Shooting ball close far, or behind body	6.5	16.92	1.20
	2	Not enough moving for striking hand	5.6	14.60	1.03
	3	Not looking fully between ball and rival field	5.2	13.54	0.95
	4	Not hitting ball with ball for correcting direction	4.9	12.74	0.90
	5	Not stretching body and body and arm while hitting	4.5	11.72	0.82
	6	Not bending trunk backward	4.3	11.20	0.80
	7	Hitting ball with fingertips	3.8	9.90	0.70
	8	Hitting ball in wrong place	3.6	9.38	0.66
<b>Sum</b>			38.5	100%	7
Final	1	Not following with trunk to foreground behind ball	5.6	53.34	1.6
	2	Not shifting body weight from back foot to front one	4.9	46.66	1.4
	<b>Sum</b>			10.5	100%

Table (6) shows percentage and grades of impact of technical performance stages

errors for top passing skill. Sums of probable arithmetic average in preliminary, main

and final amount to 26.9, 38.5, (9.38%- 53.34%), and and 10.5 respectively. The estimated degree ranged percentage ranges between between (0.66, 1.6).

**Table (7)**  
**The Relative Importance and Degrees of Technical Performance Stages of spike**

Stages	M	Performance Stages and its Continuous and Influential Errors	Probable Arithmetic Average	Percentage	Grade
Preliminary	1	Not looking fully between ball and rival field	6.75	21.80	1.30
	2	Not moving arms at the same time of approaching	6.5	21	1.25
	3	Not slightly bending trunk to foreground	5.6	18	1
	4	Not using heels in jumping	4.7	15.18	0.92
	5	Wrong timing and approaching before observing ball	3.8	12.31	0.74
	6	Weak lifting and not getting the necessary speed and power	3.6	11.62	0.70
	<b>Sum</b>			30.95	100%
Main	1	Not moving striking arm backward and forward in the direction of ball	6.75	18.65	1.60
	2	Not bending trunk backward	6.5	18	1.52

**Follow Table (7)**  
**The Relative Importance and Degrees of Technical Performance Stages of spike**

Stages	M	Performance Stages and its Continuous and Influential Errors	Probable Arithmetic Average	Percentage	Grade
	3	Stretching striking arm to the top at the moment of hitting the ball	5.6	15.50	1.30
	4	Hitting ball with fingertips	5.2	14.40	1.22
	5	Feet are touching ground at the moment of hitting	4.7	13	1.11
	6	Not placing the free arm in front of body in a square angel	3.8	10.5	0.90
	7	Opening wrist of striking hand at the moment of hitting the ball	3.6	9.95	0.85
	<b>Sum</b>			31.15	100%
<b>Final</b>	1	Excessive inclination of trunk to foreground	6.5	37.60	2
	2	Not pulling forearm to down close to body	5.6	32.35	1.84
	3	Stretching knees while landing	5.2	30.5	1.66
	<b>Sum</b>			17.3	100%

Table (7) shows percentage and grades of impact of technical performance stages errors for top passing skill. Sums of probable arithmetic average in preliminary, main and final amount to 30.95, 31.15, and 17.3 respectively.

The percentage ranges between (9.95% -37.60%), and estimated degree ranged between (0.85-2).

### 3-Proposed Training Technology Program:

An educational module was assessed to each skill with

three lessons to "down passing", four lessons to "top passing", and five lessons to "massive hitting". Time of each lesson is 120 minutes.

### **Features of Program**

#### **Application:**

- Educational modules are applied inside covered hall equipped with computer and data show.
- Teacher displays lesson content from the computer and data show, and then comes the practical application of lesson. Training is displayed with handled and moving images and videos that display details of skill in order to perceive every part and stay away from the technical errors associated with performance.

#### **Executive Procedures:**

- 1- Pre application of skills under research.
- 2- Applying the proposed Educational modules to handle mistakes from 26/2/2012 to 8/4/2012 for six weeks. We already applied three modules through (12) lesson.
- 3- Dimensional measurements of the experimental group in skills under research were

carried out from 9/4/2012 to 10/4/2012.

#### **Statistical Treatments:**

Arithmetic average, standard deviation, estimates grade, standard error, arithmetic mean, stability factor, percentage average, and tests (T).

#### **Presentation and Discussion of Results:**

**Presenting and discussing the first question which is:** what are the technical specifications for performance stages of main skills (under hand passing, higher serve, and spike) using "Beverdges & Gangstead" model?

I applied qualitative specification for technical points of skills (under hand passing, higher serve, and spike) through analyzing content of scientific references of volleyball previously mentioned using "Beverdges & Gangstead" model. This is clear in tables (1), (2), and (3). In this regard, Kinds "Duane V. Knudson "(1997) confirms qualitative specification for technical points. Teacher can use verbal signs as substitutes for complex descriptions which should be known for him (12:

123). Thus we answered first question.

**Presenting and discussing the second question which is:** what are the most continuous and influential errors of technical performance of main skills (under hand passing, higher serve, and spike) using "Hay & Reid" model?

Results of tables (5), (6), and (7) show that sum of "under hand passing" errors are 12 divided into (5) preliminary, (5) main, and (2) the final. Sum of "higher serve" errors are 15 divided into (5) preliminary, (8) main, and (2) the final. Sum of "spike" errors are 15 divided into (6) preliminary, (7) main, and (2) the final.

The researcher observed that by discovering the most influential errors

when teaching students this skill and handling them, we can overcome any technical errors that may occur in performance of each skill.

After answering first and second questions, researcher draw "form to assess technical performance of research skills".

**Presentation and Discussion of Research Imposition which is:**

There are statistically significant differences between averages of pre and post measurement grades of research sample in performance of main skills (under hand passing, higher serve, and spike) in volleyball in favor of the post measurement.

**Table (8)**  
**Significant Differences Between pre and post measurements of experimental group in research skills (under hand passing, higher serve, and spike) (N=20)**

M	Errors of Technical Performance Stages	Pre Measurement		Post Measurement		(T) Value	Improvement Percentage
		Arithmetic Average	Standard Deviation	Arithmetic Average	Standard Deviation		
hand passin	Preliminary	2.04	2.04	3.9	0.42	19.23	62.5%
	Main	2.7	2.7	5.01	0.25	22	85.5%
	Final	0.65	0.65	1.3	0.57	4.9	100%

**Foolow Table (8)**

**Significant Differences Between pre and post measurements of experimental group in research skills (under hand passing, higher serve, and spike) (N=20)**

M	Errors of Technical Performance Stages	Pre Measurement		Post Measurement		(T) Value	Improvement Percentage
		Arithmetic Average	Standard Deviation	Arithmetic Average	Standard Deviation		
higher serve	Preliminary	1.98	1.98	3.88	0.46	14.37	95.9%
	Main	2.42	2.42	4.93	0.28	19.5	103%
	Final	0.82	0.82	0.76	2.17	6.28	164%
spike	Preliminary	2.42	2.42	4.76	0.36	17.12	96.6%
	Main	3.41	3.41	5.63	0.60	10.7	65.1%
	Final	1.96	1.96	3.96	0.52	14.7	102%

Scheduled (T) on level ((0.05)= 1.69

Table (8) shows statistically significant differences between pre and post measurement at the level of technical performance of skills under research in favor of post measurement.

Researcher attribute these results to nature of educational technology program in regard of qualitative analysis and its training content to handle technical performance errors of skills under research which result in improving performance. Deficiencies and weaknesses

I identified accurately. I excluded errors that are connected with other errors and tried to arrange them in order to reach to the most influential errors on the level of technical

performance of skills under research through scientific way. I placed the content of handling steps that are consistent with grade of error impact on each skill.

In this regard, "**Essam Helmi and Mohammed Gaber Brekka**"(1997) confirms that deficiencies and weaknesses can be properly fixed by directing and motivating performance and making correct technique. Teacher and coach need to logically analyze movements to reach to the most appropriate teaching methods. This analysis studies variables that explain performance through past experiments, knowledge and information (6: 318).

Researcher attribute this improvement to presenting skills "under research" to students through educational,

audio and video media. Showing these media in an attractive way led to allow sufficient time and clear vision of accurate technical points influencing performance through moving and fixed images, serial pictures and print texts. This attracted the attention of learners, increased their concentration, raised their interest and urged them to exert more mental and practical effort which had a great impact on learning skills "under research".

**Mohammed Saad Zaglol, mkarem Abo Herga and Hany Saeed (2001), and Mohammed Elsayed Ali (2002)** confirms that technological methods are the methods of motion analysis of skills to discover and handle errors that cannot be discovered by observance. This is reflected on learning and mastery of main skills and improving performance specifications(10: 7), (8: 313).

Thus the research imposition has been verified.

#### **Conclusions:**

1- "Beverdges & Gangstead" model displayed details of technical performance and

errors of skills "under research".

2- "Hay & Reid" model identified the relative importance of the most influential technical performance errors of performance.

3- Sincerity and validity of the designed technical performance evaluation form which can be considered good scientific method to evaluate technical performance of skills (under hand passing, higher serve, and spike).

4- Educational technology program through qualitative analysis has a great impact on improving the level of performance of basic skills in volleyball "under research".

#### **Recommendations:**

1- The need to apply technical performance evaluation form of skills (under hand passing, higher serve, and spike) as an indicator of learner condition when learning and training which directs to build educational programs that help to overcome technical performance errors of learner and raising his level.

- 2- The need to apply the proposed educational technology program on students of teaching department for volleyball at Faculty of Physical Education in Assiut and South of Valley Universities in order to improve performance of volleyball skills.
- 3- Paying attention to place forms similar to technical performance evaluation form to other skills of volleyball and other games, and building educational technology programs.

#### References

- 1- **Akram Zaki Khatabya:** Encyclopedia of modern volleyball, the first edition, Dar Al-Fikr, Amman, Jordan, in 1996.
- 2- **Zaki Mohamed Hassan:** Volleyball - building technical and tactical skills, knowledge institution, Alexandria, 1997.
- 3- **Zaki Mohamed Hassan:** Volleyball modern technologies in education and training, the Arab Thought Forum, Alexandria, 2001.
- 4- **Talha Hussein Hossam El-deen, Tariq Farooq Abdul Samad, Mohammad Fawzi Abdul Shakoor:** Qualitative analysis [concept - history - models - functions - applications], "international house for publication and distribution, Cairo, 2006.
- 5- **Abdul Atty Abdul Fattah Elsayed, Khaled Mohamed Zian, and Ahmed Elsayed Moafy:** Applicable theories in volleyball, i 2, Durr tree library, Mansoura, 2006.
- 6 - **Issam Helmi, Mohammed Jaber Brika:** Sports Coaching (foundations - concepts - trends) knowledge institution, Alexandria, 1997.
- 7 - **Ali Hassanein Hassab Allah, Ali Mustafa Taha, Hazem Abdel Mohsen:** The scientific basis for teaching volleyball, Al-Abeer Foundation, Cairo, 2000.
- 8 - **Muhammad Elsayed Ali:** IT education and teaching methods, Arab Thought House, Cairo, 2002.
- 9 - **Mohamed Saad Zaghloul, Mohammed Lutfi al-Sayed:** Technical foundations for volleyball skills for teacher and coach, book publishing center, 2001.
- 10 - **Mohamed Saad Zaghloul, Mkarem Helmi Abu Herga,**

- and Hani Said Abdel-Moneim:** Educational technology and its methods in physical education, i 2, book publishing center, Cairo, 2001.
- 11 - Yehia Hussein El-metwally:** "The impact of retro prior nutrition using the computer at the level of the performance of the basic skills in volleyball for secondary students," Master, Faculty of Physical Education, Mansoura University, 2007.
- 12- Duane, V. Knudson:** "Qualitative analysis of human movement", Library of Congress Cataloging-In-Publication Data, USA, 1997.
- 13- <http://www.fivb.org/Index.asp>**
- 14- Mary wise:** volley ball drills for champions, university of Florida, editor, human kinetics', u.s.a, 1999.