

## **The effect of an educational program using immediate and postponed feedback to learning breast stroke**

**\*Dr/ Mohamed A. Makled**

### **Abstract**

This study is an attempt to identify on the effect of immediate and postponed feedback to learning breast stroke for buds; the researcher used the experimental method using the experimental design of four groups

Use a sample of (28) buds, divided into four groups, equally each (9) buds at Delmon Sports Club in Benha.

- The first experimental sample: consisted of (7) bud, to study the program with immediate feedback.
- The second experimental sample: consisted of (7) bud, to study the program, postponed post-feedback after the educational unit.
- Third Pilot Sample: consisted of (7) bud to study the program by post-feedback and before the next unit
- Control sample: consisting of (7) buds, and they are studying using the verbal explanation from the teacher

The most important results

- 1- Immediate feedback is one of the best ways and means to use in teaching Breast stroke.
- 2- Postponed feedback to the next educational unit is better than postponed to the end of the educational unit
- 3- Postponed feedback to the end of the educational unit is better than traditional methods of teaching breast stroke

**Key words:** (feedback -Immediate feedback- Postponed feedback- breast stroke )

### **Introduction**

In swimming competitions, the swimmer advances through the water medium, relying on the tureens of the arms and legs of the legs to produce the driving force to overcome the water resistances that hinder the body's progress to cover the specified distances in the shortest possible time, so there

is no way to do that except with technical performance consistent with mechanical and technical principles and principles through a codified training And a regular practice with correcting any errors that might hinder access to the method of correct technical performance. (Mohamed Ali al-Qat , 2000, p46)

\* Dp. theories and applications of aquatic sports department Faculty of Physical Education for men Banha University .

And since the teaching methods vary according to the capabilities of the students, therefore, the methods that suit the needs of the pupils must be chosen by the effects of their motivation and the successful teacher is the one who can modify the students' thinking and help them correct their mistakes so that in the day they reach the correct result and feedback is one of the methods that have the ability to determine the learner's sufficiency and development, as well as enabling him to identify and correct his mistakes (Ahmed Ashmawi, 2006, p38)

The importance of feedback is due, in the eyes of many psychologists, to many considerations, foremost among which are the effects of the learner's motivation towards learning by completing the correct responses and avoiding the wrong response, and then it leads the learner to correct their wrong response, and is considered as an enhancement or confirmation of the correct responses. (Abdul Wahab Kamel, 2011, p71)

Three main patterns of sensory feedback patterns come

through what supplies the senses to the individual from knowledge of the individual and the second is feedback from the knowledge of the individual with a degree of information that helps him to understand the best situations and the third is feedback from knowledge of the results and the extent of success in performing the required work

#### **The feedback was rating into:**

- 1- Source of feedback (internal and external)
- 2- Synchronization with response (syndrome and final)
- 3- The time period between response occurrence and providing feedback (immediate - postponed).
- 4- Format of feedback information (verbal and written)
- 5- Distribution of feedback (separate and cumulative)
- 6- The amount of feedback (relative repetition and absolute repetition)
- 7- The nature of feedback (individual and social)
- 8- After the feedback (positive and negative)
- 9- Knowing the individual with some amount of information (qualitative and quantitative)

10- Notifying the learner of the results of his performance (informative and corrective) (Magill, R.A,2001,p216)

And because feedback on different types, patterns, and many uses affects directly and clearly the educational process, it has become one of the best teaching methods and educational practices in classroom situations, so I entered the field of research and experiment. Several studies and researches were conducted to know their effectiveness in the performance of learners and their academic achievement and motivation for learning. (Siedentop, D. & Eteal, 2004, p102)

#### **Research problem :**

The most important reasons that hinder the correct method of performance and lead to the appearance of errors, which are poor knowledge and understanding of the technical and special aspects (technical) and insufficient physical performance. In light of this concept, it is necessary during the teaching and learning process in swimming to know the sequence of the movements to be performed and how to direct them with the assistance

of building on the technical analysis of performance, which is intended to explain clearly the form and direction of movement performed by the swimmer, which aims to produce the final image of the performance. The most economical of the movements to overcome the time factor (Ali Tawfiq,1996,p50)

And teaching breast stroke swimming to the buds in a correct way is a big challenge that requires the coach a great effort, as it is considered that breast stroke swimming skills are a complex skill for most young swimmers, and indicates that it must be realized that it needs a great time to learn and master well. (Sahar Abdulaziz, 2002, p75)

Swimming of the breast stroke is considered a difficult swimmer due to the difficulty of compatibility between the arms and legs, as the water component in it is large, which impedes the movement of the body forward, and the only swimming in which the two men have an effective role in it is considered to be equivalent to the effect of the arms on the movement of the body forward, and It is worth noting that the reactionary stage in breast

stroke swimming is inside the aqueous medium, unlike the rest of the other methods of swimming in which the reactionary legs are outside the water, which increases the driving resistance of the swimmer during the performance (Mohamed Ali al-Qat , 2000, p95)

This difficulty in learning breast stroke swimming due to the high levels of harmony in the legs strokes and between the strokes of the men and arms in the breast stroke swim, which the researcher was invited to try to identify the impact of interest in the recurring nutrition in learning to swim in both types (immediate and postponed) and to know which is better in improving the level of swimming performance The breast stroke, in an effort by the researcher to provide a way that enables him to teach breast stroke swimming and gain a good performance in the least time and effort possible.

**Aim of the research** This study is an attempt to identify on the effect of immediate and postponed feedback to learning breast stroke for buds

**Hypotheses:** There are statistically significant differences at the level of significance 0.05 between the four groups (experimental 1, experimental 2, experimental 3, control) in the level of learning to swim in the buds and in favor of the post-measurement of the first experimental group.

**Method**

**Design:** The researcher used the experimental method using the experimental design of four experimental groups and a control group

**sample :** Use a sample of (28) buds, divided into four groups, equally each (9) buds at Delmon Sports Club in Benha.

- The first experimental sample: consisted of (7) bud, to study the program with immediate feedback.
- The second experimental sample: consisted of (7) bud, to study the program, postponed post-feedback after the educational unit.
- Third Pilot Sample: consisted of (7) bud to study the program by post-feedback and before the next unit
- Control sample: consisting of (7) buds, and they are studying using the verbal explanation from the teacher

**Table (1)  
Homogeneity of research personnel in anthropometric variables**

	Mean	Median	Std.	Skew.
Age	121.7143	120	9.64118	-0.273
Length	140	140	2.0367	0
the weight	33.5357	33	2.54562	0.478
Training age	34.0357	34	2.5889	-0.042
Arm length	62.9286	63	1.56178	-0.564
Palm length	15.8929	16	1.42307	0.119
Palm show	6.5	6.5	1.13855	0
Thigh length	40.3571	40	1.70434	0.118
Leg length	38.0714	38	2.41797	0.249
Foot length	19.3571	19	1.70434	0.118
Foot width	7.8929	8	1.42307	0.119
Horizontal shoulder elasticity	63.2143	63	2.31512	0.202
vertical shoulder elasticity	21.8929	22	1.42307	0.119

Is evident from Table (1) that the torsion coefficient is limited between  $\pm 3$  , the data is distributed naturally distribution suggesting homogeneity

**Table (2)**  
**Homogeneity of sample individuals researching skill variables**

	Mean	Median	Std.	Skew.
Start	3.6786	3.5	0.77237	0.646
The first 25 m	4.3214	4	0.72283	-0.584
Tureen	4.5	4.5	0.83887	0
The second 25 m	3.7857	4	0.56811	-0.027
The end	0.25	0	0.44096	1.221
Total	16.5357	17	1.79469	0.517

Is evident from Table (2) that the torsion coefficient is limited between  $\pm 3$  , the data is distributed naturally distribution suggesting homogeneity

**Table (3)**  
**Anova to four research groups in the anthropometric variables**

		Sum of squares	Df.	Mean squares	f.	Sig.
Age	Between groups	123.429	3	41.143	0.414	0.745
	Within groups	2386.286	24	99.429		
	total	2509.714	27			
Training age	Between groups	0	3	0	0	1
	Within groups	112	24	4.667		
	total	112	27			
the weight	Between groups	8.107	3	2.702	0.389	0.762
	Within groups	166.857	24	6.952		
	total	174.964	27			

**Follow Table (3)**  
**Anova to four research groups in the anthropometric variables**

		Sum of squares	Df.	Mean squares	f.	Sig.
Length	Between groups	1.536	3	0.512	0.068	0.976
	Within groups	179.429	24	7.476		
	total	180.964	27			
Arm length	Between groups	0.714	3	0.238	0.088	0.966
	Within groups	65.143	24	2.714		
	total	65.857	27			
Palm length	Between groups	2.964	3	0.988	0.459	0.714
	Within groups	51.714	24	2.155		
	total	54.679	27			
Palm show	Between groups	0.714	3	0.238	0.167	0.918
	Within groups	34.286	24	1.429		
	total	35	27			
Thigh length	Between groups	0.714	3	0.238	0.074	0.974
	Within groups	77.714	24	3.238		
	total	78.429	27			
Leg length	Between groups	12.714	3	4.238	0.701	0.561
	Within groups	145.143	24	6.048		
	total	157.857	27			
Foot length	Between groups	0.714	3	0.238	0.074	0.974
	Within groups	77.714	24	3.238		
	total	78.429	27			
Foot width	Between groups	1.25	3	0.417	0.187	0.904
	Within groups	53.429	24	2.226		
	total	54.679	27			
Horizontal shoulder elasticity	Between groups	0.714	3	0.238	0.04	0.989
	Within groups	144	24	6		
	total	144.714	27			
vertical shoulder elasticity	Between groups	1.25	3	0.417	0.187	0.904
	Within groups	53.429	24	2.226		
	total	54.679	27			

Table (3) shows that the value of the calculated p is greater than the value of the tabular and statistical significance is greater than 0.05, which indicates that there

are no statistically significant differences at the level of significance 0.05, which indicates the equivalence of the sample search in anthropometric variables.

**Table (4)**  
**Anova for performance of swimming breast stroke**

		Sum of squares	Df.	Mean squares	f.	Sig.
Start	Between groups	0.393	3	0.131	0.2	0.895
	Within groups	15.714	24	0.655		
	total	16.107	27			
The first 25 m	Between groups	0.679	3	0.226	0.404	0.751
	Within groups	13.429	24	0.56		
	total	14.107	27			
Tureen	Between groups	0.429	3	0.143	0.185	0.906
	Within groups	18.571	24	0.774		
	total	19	27			

**Follow Table (4)**  
**Anova for performance of swimming breast stroke**

		Sum of squares	Df.	Mean squares	f.	Sig.
The second 25 m	Between groups	0.714	3	0.238	0.714	0.553
	Within groups	8	24	0.333		
	total	8.714	27			
finish	Between groups	0.107	3	0.036	0.167	0.918
	Within groups	5.143	24	0.214		
	total	5.25	27			
Total	Between groups	7.25	3	2.417	0.728	0.546
	Within groups	79.714	24	3.321		
	total	86.964	27			

Table (4) shows that the value of the calculated p is greater than the value of the tabular and the statistical significance is greater than 0.05, which indicates that there are no statistically significant differences at the level of significance 0.05, which indicates the equivalence of the sample search in the level of breast stroke swim performance

**Data collection tools and means:**

- A medical scale for measuring weight
- A two-pass device for measuring length
- The Maglecchio protractor to measure joint elasticity
- Swimming pool
- Floatation board
- Stand to carry the display screen
- Samsung 60 inch Smart Display
- 2 Canon cameras with high accuracy of photography and

the possibility of connecting to the laptop wireless

- Laptop
- Program for viewing videos on the computer vc Media player
- A portable router that belongs to Vodafone
- Performance evaluation form for swimming breast stroke approved by the Egyptian Swimming Federation
- Dvr device to store videos
- Free Video Cutter

**Steps to conduct a search  
Preparing the educational program:**

**The foundations of program development:**

The suitability of the program for the Sunni phase, and the use of some local and international programs that have been developed in that area, and the availability of the safety and security factor.

\* Inclusiveness and balance of development of parts of the body so that no focus is placed on one part without the other.

\* Continuity and regularity so as not to lose the impact of previous exercises.

\* The arrangement of the contents in the unit helps to achieve the best possible productivity to achieve its goals.

\* One of the most important drivers of increased motivation is informing the individual of progress in his or her level first.

\* The flexibility of the program to incorporate some of the loved elements into the soul away from boredom and monotony.

### **Program design**

The researcher has access to the Internet (Internet) and research and studies related to the subject of research, as well as books and scientific references on the subject of research and the like, the researcher designed a form to specify the educational program attached () through the analysis of local and international programs such as:

The European-American Swimming Education Program. College Misericordia College program in Pennsylvania, USA.

\* Australian Swimming Education Program.

\* American Red Cross Program.

\* IU American University Program.

\* White University Program.

\* 4 x 12 = 48 hours swimming instruction program prepared by (Abu El-Ela Abdel Fattah).

The researcher reached to define the educational goals for each program, then set the educational goals and components of the educational program for breast stroke swimming, and they were presented to the experts, and then the researcher reached the components of the educational program

**Duration of the program:** one and a half months

**Dental phase:** Swimming buds from (9 - 11) years.

**Number of learning times per week:** Two (2) educational lessons per week.

**Unit time:** (60 BC) hours per day.

**Number of educational lessons:** (13) an educational lesson distributed as follows:

\* Introductory lesson (1) (first lesson).

\* Lessons to teach the two men's skill (5) (from the second lesson to the eighth lesson).

\* Lessons for teaching farmers' skill (3) (ninth lesson).

\* Lessons to teach arms movements and alignment with the legs of the two men (2) (tenth and eleventh lessons)

\* Breathing and aligning with the movements of the arms and legs (1) (Lesson 12).

\* Breathing and alignment with the movements of the arms and legs of the legs (complete breast stroke swimming performance) (1) (thirteenth lesson).

The 30-second video presentation period for the second experimental group to be displayed after the educational unit. The video display for the third experimental group to be displayed before the educational unit.

Videos of 30 s have been added to the first experimental group on the educational unit to be 120 s, as the presentation will include inside the educational unit and after performing each exercise during the educational unit

#### **Preparing feedback methods:**

1- The researcher has prepared a number (13) video of performing the parts of the motor skill (buoyancy- the legs strokes- arm movements-

compatibility- breathing- and the performance of swimming in full) under study and making sure of their clarity in the vision

2- The researcher equipped the Smart Display with its stand

3- The researcher prepared 2 cameras with their stand where one of them was installed with the width of the swimming pool and the second along the length of the bath and in the same field of performing buds for performance exercises.

4- Connecting the camera to a DVR device to record what is filmed during the educational unit and the ability to play back at different speeds

5- The researcher prepared a laptop with a video player program vc media player and a program to cut videos to smaller videos Free Video Cutter

#### **The Survey:**

The researcher conducted a survey study to make sure all the connections to the work unit, which consist of a camera connected to a power source and a DVR device to photograph and save with the ability to restart it on the display screen and linked to the laptop through the mobile Wi-Fi network and confirmed the possibility of photography and display again and the

possibility of display From the lab on the display screen for previously prepared videos, and the photography was based on one of the researcher's assistants, and the researcher was able to set all connections for the above mentioned devices, and they work efficiently and in the same field of the educational unit.

**Tribal Measurement:** The researcher conducted the pre-measurement of the research sample on 27/5/2018, for a group of anthropometric and skill measurements using three residents, where the score was calculated by taking the mean

#### **Basic experience**

**The researcher conducted the basic study in the period from For the first experimental group:** from 1/6/2018 to 7/18/2018 by performing the educational unit and inside it the researcher displays the video of each bud for him in front of the display screen then perform the video presentation to perform the proper after each performance with an explanation of the differences for the bud and then perform the skill again

**For the second experimental group:** from 2/6/2018 to 7/19/2018, by performing the educational unit, the researcher will photograph the performance of the students and then display the performance that was photographed after the

completion of the educational unit with an explanation of the errors and display the videos that were prepared to perform the segmented motor skills to suit All alone and clarify the differences between bud performance and proper performance.

**The third experimental group:** from 3/6/2018 to 20/7/2018, by performing the educational unit and photographing each bud in his performance during the unit and then displays the videos of each bud about the educational unit 1 for example before starting the educational unit 2 with clarifying the differences between the performance of the buds And proper performance.

**Control group:** From 4/6/2018 to 21/7/2018 where the researcher conducted the basic experiment with the traditional explanation.

**Dimensional measurement:** The researcher made the dimensional measurements of the research samples as follows

The first experimental group is on 7/22/2018

The second experimental group on 7/23/2018

The third experimental group on 24/7/2018

The control group was on 25/7/2018

It has to be in the same manner of performance and in the same conditions as for tribal measurement

#### **Results**

**Table (6)**  
**ANOVA to Dimensional measurements of the four groups**

		مجموع المربعات	درجة الحرية	متوسط المربعات	قيمه ف	الدلالة
Start	Between groups	69.536	3	23.179	42.326	.000
	Within groups	13.143	24	.548		
	total	82.679	27			
The first 25 m	Between groups	74.964	3	24.988	58.306	.000
	Within groups	10.286	24	.429		
	total	85.250	27			
Tureen	Between groups	70.143	3	23.381	39.280	.000
	Within groups	14.286	24	.595		
	total	84.429	27			
The second 25 m	Between groups	67.000	3	22.333	55.176	.000
	Within groups	9.714	24	.405		
	total	76.714	27			
finish	Between groups	.107	3	.036	1.000	.410
	Within groups	.857	24	.036		
	total	.964	27			
total	Between groups	1144.679	3	381.560	182.108	.000
	Within groups	50.286	24	2.095		
	total	1194.964	27			

Table (6) shows that there are statistically significant differences at the level of significance 0.05 between the

dimensional measurements of the four groups except for the end of swimming breast stroke, there are no differences.

**Table (7)**  
**L.S.D test between the four dimensional measurements**

		mean	Std.	Experimental 2	Experimental 3	Control group
start	Experimental 1	0.69	10.86	-1.14	0.00	-3.86
	Experimental 2	0.76	9.71		1.14	-2.71
	Experimental 3	0.69	10.86			-3.86
	Control group	0.82	7.00			
First25m	Experimental 1	0.49	11.71	-1.43	-1.43	-0.29
	Experimental 2	0.76	10.29		1.14	-2.71
	Experimental 3	0.79	11.43			-3.86
	Control group	0.53	7.57			
tureen	Experimental 1	0.49	11.71	-1.14	-0.29	-4.00
	Experimental 2	0.98	10.57		0.86	-2.86
	Experimental 3	0.79	11.43			-3.71
	Control group	0.76	7.71			

**Follow Table (7)**  
**L.S.D test between the four dimensional measurements**

		mean	Std.	Experimental 2	Experimental 3	Control group
The	Experimental 1	0.69	11.14	-1.43	-0.14	-3.86

second 25 m	Experimental 2	0.49	9.71		1.29	-2.43
	Experimental 3	0.82	11.00			-3.71
	Control group	0.49	7.29			
finish	Experimental 1	0.00	2.00	0.00	0.00	-0.14
	Experimental 2	0.00	2.00		0.00	-0.14
	Experimental 3	0.00	2.00			-0.14
	Control group	0.38	1.86			
total	Experimental 1	0.98	47.43	-5.14	-0.71	-16.00
	Experimental 2	1.80	42.29		4.43	-10.86
	Experimental 3	1.60	46.71			-15.29
	Control group	1.27	31.43			

Table (7) shows that there are differences between all groups except for experimental group 1 and experimental group 3 and

the absence of statistically significant differences between all groups at the end.

**Table (8)  
percentage of improvement for the four groups in the level of breast stroke swim performance**

		Before		after		difference	%
		mean	Std.	mean	Std.		
start	Experimental 1	3.571429	0.786796	10.85714	0.690066	7.285714	204%
	Experimental 2	3.571429	0.786796	9.714286	0.755929	6.142857	172%
	Experimental 3	3.714286	0.755929	10.85714	0.690066	7.142857	192%
	Control group	3.857143	0.899735	7	0.816497	3.142857	81%
First25m	Experimental 1	4.285714	0.755929	11.71429	0.48795	7.428571	173%
	Experimental 2	4.142857	0.899735	10.28571	0.755929	6.142857	148%
	Experimental 3	4.285714	0.755929	11.42857	0.786796	7.142857	167%
	Control group	4.571429	0.534522	7.571429	0.534522	3	66%
tween	Experimental 1	4.285714	0.755929	11.71429	0.48795	7.428571	173%
	Experimental 2	4.571429	0.9759	10.57143	0.9759	6	131%
	Experimental 3	4.571429	0.9759	11.42857	0.786796	6.857143	150%
	Control group	4.571429	0.786796	7.714286	0.755929	3.142857	69%
The second 25 m	Experimental 1	3.714286	0.48795	11.14286	0.690066	7.428571	200%
	Experimental 2	3.571429	0.534522	9.714286	0.48795	6.142857	172%
	Experimental 3	3.857143	0.690066	11	0.816497	7.142857	185%
	Control group	4	0.57735	7.285714	0.48795	3.285714	82%
finish	Experimental 1	0.142857	0.377964	2	0	1.857143	1300%
	Experimental 2	0.285714	0.48795	2	0	1.714286	600%
	Experimental 3	0.285714	0.48795	2	0	1.714286	600%
	Control group	0.285714	0.48795	1.857143	0.377964	1.571429	550%
total	Experimental 1	16	1.414214	47.42857	0.9759	31.42857	196%
	Experimental 2	16.14286	1.9518	42.28571	1.799471	26.14286	162%
	Experimental 3	16.71429	1.976047	46.71429	1.603567	30	179%
	Control group	17.28571	1.889822	31.42857	1.272418	14.14286	82%

Table (8) percentage of improvement for the four groups in the level of breast stroke swim performance

Table (6) shows a statistically significant difference at the level of significance 0.05 between the four groups in the dimensional measurement where the value

**Discuss the results:**

of the calculated  $p$  was greater than the value of the tabular as the value of the statistical significance is smaller than the value of 0.05 except for the end variable

Table (7) shows that there are differences in the means between the first experimental group and the second experimental group and the control in all variables except for the end variable

It is also evident that there are statistically significant differences at the level of 0.05 between the third experimental group and the second experimental group and the control in all variables except for the end variable in favor of the third experimental group

It is also clear from the presence of statistically significant differences at the level of significance 0.05 between the second experimental group and the control group in all variables except for the end variable in favor of the second experimental group

It is also evident that there are no statistically significant differences at the 0.05 specificity level between the first experimental group

and the third experimental group in the level of breast stroke swim performance

While it is clear from Table (8) that the first experimental group outperformed all groups in the improvement rate and the third experimental group outperformed the improvement rates over all groups except for the first experimental group while the second group outperformed the control group in the improvement rate

The researcher attributes this improvement to the use of feedback, as using it in its various ways leads to an improvement over the traditional method, as it is characterized by its immediate use during performance to improve the level more than the deferred use after the educational unit or at the beginning of the second unit, due to the importance of feedback and the extent of its effectiveness in skills Kinetic performance that needs high compatibility

This finding is consistent with the study of Magill, R.A. (2001)) (12) Niilo, Knttine. (2004) (13) Ahmed El Sayed Saeed Mohamed Ashmawi (2006) (2) Abdel Wahab

Kamel (2011) (6) Mohamed Atef Ahmed El Deeb (2012) (13) Esraa Sabry Ahmed Ismail (2013) (3) Abdullah Saad Abdel Gawad: (2017) (7), where all these studies indicated the extent of the effect of the educational program on the level of motor performance with different motor skills under study and the extent of the impact of feedback or reactionary on the level of motor performance of the skills

#### **Conclusions and Recommendations**

##### **Conclusions:**

- 1- Instant feedback is one of the best ways, means, and methods that can be used in teaching chest swimming
- 2- Postponed feedback to the next educational unit is better than postponed to the end of the educational unit
- 3- Deferred feedback to the end of the educational unit is better than traditional methods of teaching swimming pool.
- 4- Photographing students while they are swimming and displaying them again, and comparing them with the correct performance, motivates students to perform the correct way, then discovering mistakes and quickly fixing them

##### **Recommendations:**

1- The necessity of providing different educational means for swimming pools and its divisions of computers, video, cameras and display screens for use in the process of teaching and teaching swimming sports.

2- Focusing on using the feedback method in proportion to the intended skill in the education process to correct mistakes

3 - The necessity of knowing the employees and those in charge of the educational process with different educational methods in order to contribute to delivering the educational information in the shortest time.

4- The necessity of conducting similar studies on the rest of the skills of swimming, water sports and other games

##### **References**

- 1- **Abu Al-Ella Ahmed Abdel-Fattah (1996):** 4 x 12 = 48 to learn swimming, Dar Al-Fikr Al-Arabi, Cairo.
- 2- **Ahmed El-Sayed Said Mohamed Ashmawy (2006):** "The effect of nutritional feeding on improving the skill performance of the Burmah Al-Wasat movement for wrestlers. Thesis (MA) - Benha

University. Faculty of Physical Education for Boys

3- **Israa Sabry Ahmed Ismail (2013):** The effect of immediate reactionary feeding on the level of performance of the front flip-flop skill on the hands on the horse jumping device for students of the Faculty of Physical Education Thesis (MA) - Helwan University. College of Physical Education for Girls on the island

4- **Sahar Abdel Aziz Mohamed (2002):** The effectiveness of using mini-training on developing chest swimming skills among students of the Faculty of Physical Education for Girls, Master Thesis, Helwan University.

5- **Shams Al-Din Mahmoud (2002):** The effect of using a program for special purpose exercises on the level of technical performance of chest swimming for buds, Master Thesis, unpublished, Faculty of Physical Education for Boys in Cairo, Helwan University.

6- **Abdel-Wahab Kamel (2011):** revealing the effectiveness of both cognitive training and vital feedback training and merging them (as

an introduction to integrated training in light of the overall model of brain functions) Tanta University, Faculty of Education

7- **Abdullah Saad Abdul-Jawad: (2017):** The effect of using remote feedback on learning some handball skills. The research aims to influence the use of reactionary remote feeding on teaching some handball skills., Thesis (MA) - Mansoura University. Faculty of Physical Education

8- **Ali Muhammad Tawfiq (1996):** Swimming for Children and Young People, Publishing House, Cairo.

9- **Mohamed Atef Ahmed El-Deeb (2012):** The effect of using some of the feedback methods to improve performance in sports shows for students of the Faculty of Physical Education for Boys, thesis (PhD) - Tanta University. Faculty of Education

10- **Muhammad Ali Al-Qat (2000 AD):** Scientific Principles of Swimming, Al-Azizi Computer Library, Zagazig.

11- **Brooks, Lacne & Sqwhill (2000) :** The Biomechanical Interaction of lift and Propulsion forces during

skills breast swimming  
medicine and science in sport  
and exercise, 32 (5).

12- **Magill, R.A. (2001):**  
"Feedback effects". In: B.  
Singer, H. Hausenblas & C.  
Janelle (Eds.). Handbook of  
Sport Psychology. 2nd  
Edition. N. Y. John Wiley &  
Sons

13- **Niilo, Knttine. (2004):**  
"The effects of augmented  
auditory feedback on  
psychomotor skill learning. in  
precision shooting". Journal of

sport and exercise psychology.  
26(2). June.

14- **Siedentop, D. &  
Tannehill n. Kaiso, Mononen.  
Jukka, viitasalo. Toni, mets.  
(2004).** "Developing Teaching  
Skills in Physical Education".  
Mountain View. CA: Mayfield  
Publishing Company

15- **Siedentop, D.  
Tannehill: (2000).** Developing  
Teaching skills in physical  
education. 4th ED. California.  
Mayfield.