Open-Access Journal
DOI https://doi.org/10.69792/IJHS.23.2.3
https://orcid.org/0000-0003-4276-9080

International Journal for Humanities and Social Sciences (IJHS)

ISSN (Online): 2945-4271
No. 2 | Issue 1| Dec. 2023

The Effect of Using Water Wireless Aqua Com System on the Development of Dolphin Kick Movements on the Female Swimming Team at the Faculty of physical Education

Professor Wisal AlRabadi (Ph. D) *

Faculty of Physical Education – Yarmouk University
Wrabadi69@gmail.com

Abstract:
The study's goal was to see how the use of water wireless Aqua Com System and its accompanying music affected the Female Swimming Team at the Faculty of Physical Education's development of dolphin kick movements. To that end, a training program consisting of (12) training units spread out over four weeks, three units per week, was created and applied to a study sample of (10) students from the swimming pool enrolled in the first semester of the academic year 2023. Pre-measuring and timing the movements of dolphins kicking with and without fins above and below measuring the water's surface over a distance of 25 meters.
The results showed that there are statistically significant differences in favor of telemetry from the start within the limits of the area specified for a distance of 15 m after the comparison between the pre and post measurement using the test (T) of the double samples, and this indicates the impact of the training program using the Aqua Com System in the swimming team (Female) at Faculty of physical Education, and in light of this a set of recommendations was developed.

Keywords: Aqua Com System Training Program, Dolphin kick Movements, Swimming Team Female.

Received: 22/08/2023 Accepted: 28/09/2023 Proofreading: 06/10/2023 Available online: 31/12/2023

Introduction:

Today's world is marked by rapid and successive changes in a variety of fields, including sports, where human and material capabilities have combined to bring practitioners to the highest levels of skill, and where the swimming team tries to demonstrate the extent of technical progress within their country in raising the level of the athlete, which has had a significant impact on determining new tasks for the process. Universities and clubs that advocate for the modernization and development of training and teaching material and methods in order to improve and accelerate education in all sciences, including physical education, particularly in the field of swimming.

Because of the importance of mastering each skill and its usefulness, there has been quick and constant growth in identifying the best approaches and methods for training swimming skills. The researcher focused on the movements of the two dolphin legs, which are one of the individual skills that are characterized by suspense and accuracy in performance in terms of the correct technique of the moving path of the event, and this was confirmed by both (Al-Rabadi and Al-Widyan 2014), and that the progress in the level of any swimmer depends to a large extent on the degree of mastery of that skill, and it can be achieved by following specialized training using modern approaches and technology means (such as the Aqua com wireless communication device) as an intermediary means in a proper training method that aids in the flawless installation of the skill mechanism

Training doses, or the content of a training unit, are the foundation of swimming training because the content of these units is specifically directed to achieve interim goals, and despite the various requirements of training and competition, as well as the athlete's absorption and benefit from an effective training load, it is linked to good training planning and calculating the various directions of the training load. It is accurate and proportional to the athlete's level for each training dose to lead the development of his training (Samerai 2005,Sababeha 2015, Jarar Alhourani 2010, AlRabadi 2015) condition in line with those criteria and improve his degree of achievement.

Training changes from one method to the next, and each coach strives to employ the approach that best suits the nature of his players, allowing him to improve moving and schematic abilities.

Corresponding Author:| Email: *Wrabadi69@gmail.com

The first training methods were used in athletics, and many swimming training methods arose as a result of them (Miqdad, 2000).

This study uses a wireless communication unit device to train the movements of the dolphin legs, which is a method of implementing the training process using technological means and music, and this method leads to the discovery of new motives, as it provides better conditions in the modern training process and yields a different set of results. The goals are to master the dolphin legs' movements in a harmonious manner, while the other section is about the swimmer's expanding role in improving technical performance in the effectiveness of the dolphin legs' movements using modern technological means and various exercises to achieve the best results. Al-Rabadi (Arabic: (Lattee 2010).

As a result, discovering modern approaches and procedures that would enhance the degree of technical performance and thus achievement has received a lot of attention. The method of training and the method of implementation are important in transferring modern scientific swimming technology that is closely tied to the capabilities and quality of swimming in the usage of methods and methods that are tailored to their unique peculiarities. As a result, the researcher focused on improving swimmers' performance by creating a better training environment for them in the effectiveness of the movements of the two dolphin legs, as well as giving them the opportunity to take a sensory-moving perception of the performance path during the implementation of the technical stages.

As a result, the study's difficulty originated from an attempt to determine the impact of the water communication unit as a tool on the development of dolphin motions in the Faculty of Physical Education's swimming team (females).

The effectiveness of the dolphin's movements plays a major role in the competitions, as it is characterized by its speed of performance in comparison to the other four swimming plays, and it is one of the most important activities that has become the focus in terms of digital achievement start and spin swimming. And the actions of the two dolphin legs for all four swimming arts within the 15 m underwater area.

The researcher tried to develop a modern method in the field of training by using the wireless communication unit device to follow up on the female students in the swimming team and give them immediate feedback in terms of technical performance and thinking about it with knowledge of the time that has passed and talking with the student directly, based on her practical experience in this field.
Whether it is above or below the surface of the water, this device is interested in applying all situations and the trainer has a clear vision during the trainee's performance through the device's screen so that his image is distinct and clear during the performance and thus reveals the students' weak points.

Programs of Study: The first step in any training program is to determine the program's goal and the training methods that will be used, which include (strength training, ability training, strength characterized by speed, flexibility training, endurance training, speed training and racing speed training, Swimming training, and swimming method performance workouts, speed regulation training, race strategy training, and lastly psychological training). Although the combination of these aspects and the inclusion of the training dosage can be generated in varied and diverse models that are difficult to enumerate, the four

Corresponding Author** | **Email:** ***Wrabadi69@gmail.com

elements that depend on the construction of training dose programs are: (Volck, 2006).

1) For one of the following training regimens, swim a set of repetitions: Interval training, speed training, and repetitive training are the three types of training.

2) Swimming beyond the distance of the race

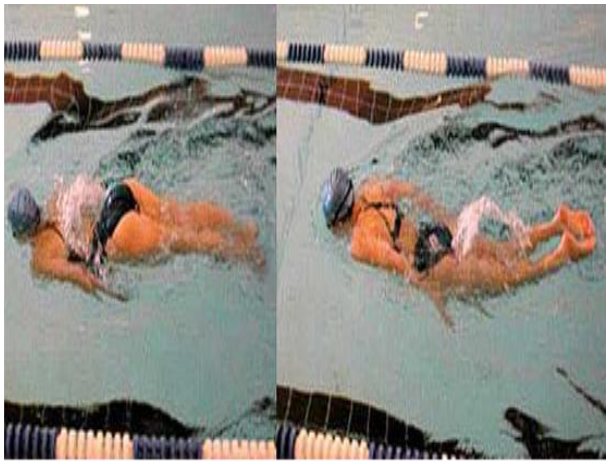
3) Leg kicks, which can be done in any of the other ways of training (interval, speed, repetition, extra distance)

4) Arm stretching: this can be done in any of the positions of the previous training methods (interval, speed, repetition, extra distance).

Kinetic explanation of the movements of a dolphin's two legs

Leg strikes: the swimmer's legs move from the center of the body, allowing them to produce similar vertical strokes. The movement is also aided by the knee joint and the thigh joints. The swimmer pushes through the horizontal posture and descends via the thighs with his knees bent in half at a 90-degree angle. To use the combs to draw the heels down the water surface towards the buttocks. To conduct the basic backward and forward movement, the swimmer forcibly straightens the knees. The shape of the rear of the foot is completely backward. The body moves in the opposite way, forward and up in an undulating motion, raising the seat level and lowering the midsection of the body and chest a little, before moving on to the head and shoulders. The movement is up, down, and the least forward movement of the body in order to keep the forward movement of the body going. Also, straighten the legs completely until the heels appear out of the water, or slightly below the surface of the water with the lowering of the buttocks level down (Reischle, 2000), (Wang & Luis, 2008).

According to the researcher, the timing expresses the number of strokes of the two legs per minute, and the usual way to express the ratio of the movements of the arms to the number of strokes of the legs for each arm cycle, and whatever the number of strokes of the two legs, there must be a downward stroke that corresponds to the last push of the arm to raise the hip up to not more than the resistance occurs as a result of its descent to the bottom. At this particular stage, the importance of the two legs appears as an important factor in keeping the body in its fluid state, rather than as a driving force for the body. One of the most common mistakes beginners make when executing a butterfly is kicking in a uniform manner, without alternating between small and large kick.



The Study Problem:

The swimming instructor and coach is the expert eye through which any error, distortion, or defect can be acquired and noticed, and so progresses towards learning and discovering remedial and rehabilitative strategies to combat

*Corresponding Author | Email: *Wrabadi69@gmail.com*

the impurities associated with the moving path of the required skill.

In the female swimming team at the Faculty of Physical Education, the researcher found distortions and variations in the moving path of the motions of the two dolphin legs. To attain digital success, the swimmer must move in an ideal manner. And using music during the training process to connect the skill and the prospect of connecting it to the swimming team to experience the rhythmic movement, to help disseminate the spirit of activity, fun, and constructive moving excitement.

Thus gaining capabilities in the speed factor of the two dolphins' legs movements, whether for dolphin swimming or taking advantage of them after starting and rotating the movements of the two legs under water within 15 m during the race, and thus providing teachers, researchers, and trainers with valuable information about the impact of using the water wireless unit device and its effectiveness in learning swimming skills.

The Importance of the Study:

It is an attempt to test a new technology from modern Aqua com technology, through which it is possible to provide individual training with new training strategies to find effective solutions to many training problems that face the swimmers in light of the successive and rapid challenges and as a result of the development in the technology of processing fast instant communication. In view of the quick and successive challenges, it has become important to make optimal use of modern technical approaches in an attempt to overcome difficulties and discover appropriate training methods for many of the problems that swimmers face. Because the employment of training technology methods in the aquatic media represents a type of organized contact between the trainer and the student, it gives the educational experience in its entirety. The use of these technological methods in swimming training allowed the swimmers to use more than one of their senses, which increased their concentration and motivation, allowing them to absorb the successive stages of the trainer's performance as well as the continuous skill and skill interaction during the training and swimming skills. With its positive application environment, which promotes attention, enthusiasm, and a desire to obtain instant knowledge and so absorb instructions and fix faults positively to accomplish digital achievement.

Study Objectives:

The purpose of this study is to determine:

1- The effect of employing a wireless communication unit device in conjunction with music in developing the dolphin legs of the swimming team (females) at the Faculty of Physical Education.

2- To determine the influence of a wireless communication unit as a tool accompanied by music on the speed factor of the two dolphin legs motions in the swimming team (females) at the Faculty of Physical Education.

Study Hypotheses:

The purpose of this study is to see if the following hypotheses are true: - There are statistically significant differences at the significance level ($\alpha \leq 0.05$) between pre and post measurements of the use of the radio unit in developing the movements of the dolphin legs of the female swimming team in the Faculty of Physical Education, and in favor of the post-measurement of the students in the Faculty of Physical Education at a distance of 25 meters above and below the pond.

For a distance of 15 meters from the starting base, there are statistically significant differences level in favor of the dimensional measurement ($\alpha \leq 0.05$) between the pre and post measurements of female students of the

Corresponding Author** | **Email:** ***Wrabadi69@gmail.com

College of Physical Education for the speed factor of the movements of the two dolphin legs among the female swimming team in the College of Physical Education.

The limits of the study

Human limits: the swimming team of female students of the Faculty of Physical Education at Yarmouk University for the academic year (2022/2023).

Space boundaries: Yarmouk University swimming pool, and its boundaries (length: 25 m) (width: 12.5 m) (depth, 1.68-5 m).

Time limits: The study was conducted and the program was implemented in the first semester of the academic year (2022/2023), where the application of the study started exactly from (22/1 - 19/2/2023).

Observations on Previous Research

It is clear from previous studies how much knowledge and information they contributed to the researcher's research plan, methodology, and procedures, as well as what it contained in terms of theoretical information, tools, and scientific results, which aided the researcher in dealing with this study and comparing its results and findings. The experimental method's suitability for the nature of different forms of scientific study. Previous study has aided the researcher with the following:

Establishing the proper scientific approach, the study's means and tools, the study's steps, to be followed by the statistical method utilized in these studies, determining what is appropriate for the investigation, and methods of showing and interpreting statistics tables.

The current study differed from earlier ones in the following ways:

Building a special training program for developing the speed of the movements of the dolphin legs using the Aqua com water wireless communication device, which was applied to female swimming team students at Yarmouk University for swimming, where the researcher did not find a study conducted on Yarmouk University students for swim.

Method and Procedure: This chapter covers the study's methodology and processes, as well as the study's curriculum, demographic and sample, study tools, procedures for planning and implementing the training program, and statistical treatment.

Study Methodology: Due to the nature of the study, the researcher used an experimental approach based on an experimental group with a pre and post design tp match with the nature of the study.

Study Community: The study community was made up of female swimming team students at Yarmouk University's Faculty of Physical Education for the academic year (2022-2023), and the sample was made up of (10) female students who were purposefully chosen from the study population as an experimental group.

Time period: The survey began on January 22, 2023, and the program began on Jan. 22, 2023, and ended on Feb. 19, 2023

Study Tools

First: The Training Program

The researcher reviewed the written theoretical literature about dolphin swimming and the fundamentals of sports training for female students in the Faculty of Physical Education's swimming course (2), and created a set of exercises and exercises that were organized into training units and distributed over a four-week period (training period), as shown in table (1). Table (2) indicates the distribution of the training program units during the training time,

Corresponding Author** | **Email:** ***Wrabadi69@gmail.com

as well as the general goal of the program, the targeted group, and the number of sessions.

Table 1 shows the program's overall goal, target audience, and quantity of training units.

General objective	This study looked at the impact of a proposed training program on the development of dolphin leg movements in female swimming team members who used Aqua com.
Targeted group	Female Swimming Team Students - College of Physical Education/ Yarmouk University
Group Age	19-22 year
Number of units	A training program consisting of (12) training units distributed over four weeks, at the rate of (3) units per week.
Program construction	The training program was created by the researcher based on earlier research on the development of the speed of the two dolphin legs' motions above and below the water's surface.

Second, there are tools for putting the research into practice.

The Aquacom water wireless device, tweezer, flotation boards, pull boy, kickboard, paddles, poolpudles, strechcords, fins, stopwatch, , and rams were used by the researcher to conduct the investigation**.**

The Device's Working Principle:

The Aquacom wireless as a tool is made up of two parts: the control unit, which consists of transmitter and receiver buttons located on the water's surface under the trainer's control, and the underwater receiver and transmitter unit for all swimmers, which is mounted on the swimmer's helmet. Each swimmer has a microphone attached to their mouth, a transmitter and receiver on the ear, and a specific helmet connector with which the coach may communicate and monitor their performance

Training and debugging on three rooms of the trainer's deck unit - the first room for the first swimmer, the second room for the second swimmer, and the third room for the third swimmer - using a specific button command. If the first swimmer has any observations, he can speak with the coach by hitting the button provided for that purpose. When the coach uses his surface unit to correct problems or make notes for the exercise, it does it simultaneously, and all three swimmers may hear it at the same time.And it is done by the swimmer pressing the button with his mouth and talking, and everyone hears what the speaker is saying at the same time, and the coach's role from the surface unit presses the button from above, and the swimmer hears his observations from below when he leaves the button.

OCEAN TECHNOLOGY SYSTEMS = FULL- FACE MASK

Corresponding Author** | **Email:** ***Wrabadi69@gmail.com

The exploratory investigation (trustworthiness and honesty): On (15/1-19/1/2023), the researcher conducted a preliminary experiment on (5) female students to ensure the applicability of the study tools, as certain exercises and exercises were offered to the students, and to ensure that the experiment circumstances were legitimate for application to the original sample. The validity of the measurement equipment utilized, particularly the (stopwatch) to measure performance time, was also verified by the researcher.

The validity of these tests to evaluate the moving performance and time of the trainees' dives was certified by a group of arbitrators moving skilled in this field, and the stability was retrieved by (Test.R.test), and the findings were as shown in Table 1. (2).

Table 2: Results of the exploratory sample Test.R.test for stability

No.	Test	Test.R.test Value
1	Two-legged dolphin movements using flippers underwater for a distance of 25 m/sec	0.88
2	Two-legged dolphin movements using fins at the surface of the water for a distance of 25 m/sec	0.92
3	Two-legged dolphin movements without the use of fins from the starting base for a distance of 15 m / second	0.93

Table (2) shows that the reliability of the (Test.R.test) technique is excellent, as evidenced by the stability coefficients of the first test (0.88), the second test (0.92), and the third test (0.93), all of which are appropriate for the implementation of these tests.

Tests used:

1- The first test involved the movement of two dolphin legs beneath water at a speed of 25 meters per second. Calculating the time of the two dolphins' movements beneath water using their fins for a distance of 25 meters.
2- The second test: estimating the time of the dolphin's two legs movements using the fins at the water level for a distance of 25 m using the fins at the water level.
3- The third test involves moving two dolphin legs without utilizing the fins for a distance of 15 meters at a speed of 15 meters per second.
Statistical treatment: In order to meet the study's aims and test its hypothesis, the following statistical procedures were used:
To ensure the stability of the tests employed, utilize the (Test.R.test) method.
To find the differences between the mean pre and post measurements for the research tests, use the paired samples test.

Examine and Discuss the Results-

The results of the study, which aims to determine the influence of using the Aquacom wireless communication device on the development of the dolphin legs movements of the female swimming team in the Faculty of Physical Education, are presented and discussed in this section. The findings are provided in accordance with the study's hypothesis:

The findings support the first hypothesis: There are statistically significant differences at the level of significance ($\alpha \leq 0.05$) between pre and post measurements of the use of the radio unit in developing the movements of the dolphin legs in the female swimming team at the College of Physical Education, and in favor of the post-measurement of female students at a

*Corresponding Author | Email: *Wrabadi69@gmail.com*

distance of 25 meters above and below the water.

A paired sample t-test was used to determine the differences between the pre- and post-measurement averages of the first and second research tests in order to evaluate this hypothesis. The following are the outcomes:

Table (3) shows how the paired samples test was used to determine the differences between pre and post measurements when testing the movements of the female swimming team's dolphin legs above and below the water's surface for a distance of 25 meters.

Test	Measurement	Arithmetic mean	standard deviation	T Value	Statistical significance
The movements of the two legs of the dolphin under the water	Before	19.70	1.88	8.510	0.00
	After	18.40	1.95		
The movements of the dolphin legs above the water	Before	20.20	1.39	11.00	0.00
	After	19.10	1.28		

Table (3) reveals that there are statistically significant differences between pre and post measurements for assessing the motions of the female swimming team's dolphin legs under the water surface for a distance of 25 meters, where the value of (t) was (8.510) and statistical significance (0.00).

The reason for this is because employing a wireless communication unit gives swimmers a better possibility of identifying performance flaws and utilising the trainer's notes because this technical method is used while allowing the swimmer to focus on his performance and spot his mistakes. The researcher's training program was created in such a way that it can sense and mentally visualize, follow up on, and direct the trainer to apply and address the technical aspects in such a way that he can present the exercise in a clear and useful manner, taking into account the training bases in terms of intensity, number of repetitions, and positive comfort of each exercise consistent result. A companion piece to the current research is a (Abu Alim, 2009), where these results agree with the results of the study (Jarrar and Orabi, 2010), Wedyan (2009), Rabadi (2021), Rabadi (2018), Rabadi (2015), Rabadi (2009). And the study of Wedyan (2004), which found discrepancies between pre and post measures of the fins group in favor of dimensional measurements, and the study of (Latte E & et al, 2010), all of which verified the usefulness of training programs in developing swimming performance.

By increasing the sensory effects available to the learner, particularly the kinesthetic factor related to performance, which plays a significant role in increasing focus and attention toward the movement's goal, the neural pathway that aids correct performance in subsequent attempts to perform was strengthened. It allowed the swimmers an opportunity to develop a clear and complete picture of their performance, which boosted the accurate kinetic perception of performance, by covering the movement and following it up by the coach, especially underwater activities (Al-Rabadi, 2019).

The second hypothesis: For a distance of 15 meters from the starting base, there are statistically significant ($\alpha \leq 0.05$) differences in favor of the post measurement between the pre and post measurements of female students of the College of Physical Education for the speed factor of the dolphin leg movements of the female swimming team in the College of Physical Education.

A paired sample t-test was used to find differences between the averages of the tribal and distant measurements to examine the speed of the dolphin's legs movements at a distance of 15 meters from the starting base, and the results are presented below:

Table (4) the application of the paired samples test to identify the differences between the pre

*Corresponding Author | Email: *Wrabadi69@gmail.com*

and post measurements of the velocity factor of the movements of the two dolphin legs, for a distance of 15 meters from the starting base.

Speed test for dolphin leg movements, 15 meters from the starting base	Measurement	Arithmetic mean	standard deviation	T Value	Statistical significance
	Before	10.10	1.59	6.708	0.00
	After	9.10	1.79		

Table (4) reveals that there are statistically significant differences between the two measures, tribal and distant, for assessing the speed of the two dolphin legs' movements at a distance of 15 meters from the starting base, where the value of (t) was (6.708). (0.00). This implies that the underwater wireless communication unit training program aided in achieving a high degree of swimming proficiency, reducing common errors in the motions of the two dolphin legs, and gaining a modest time to finish inside 15 meters under water. During the training process, technological means have a clear part in focusing on learning moving abilities to profit in the examination of technical performance through exercises from various scenarios, while providing the proper opportunity for music to complement training by stimulating moving neurons to reach the nearest moving-technical path

And the best times to be achieved in this training process, as the wireless communication unit played a major role in achieving the digital achievement of the movements of the two dolphin legs during the training doses of the given program over a distance of 15 m after the start of swimming, in terms of performance follow-up, and showing errors and prompt treatment.

And how to sense time throughout the training process, as well as pressure on the swimmers during the exercise process to gradually increase pace in terms of intensity. The study found that using the as a tool and the wireless communication unit improved the level of achievement of the dolphin's two legs moving under and above the surface of the water at a certain depth when doing special exercises. And all prior research, such as (Al-Widyan and others, 2009), (Al-Rabadi, 2021), and (Abu Al-Tayeb, 2015), have confirmed that the employment of various forms of technology methods has an effective function in boosting the efficiency of swimmers (Sabha, 2008)

And that the integrated communication unit played a significant role in terms of watching and following the trajectory of the dolphin's leg movement from various perspectives, as the movement of the two legs originates in the middle, allowing for identical vertical strikes, and a sense of time during the performance, as well as the pause period between the application of one skill and the next, as well as the time range taken by the teacher, trainer, and swiper. The same, and I believe that this modern method is one of the most effective ways to apply the skill in a short amount of time in order to correct the moving course of performance and achieve the goal.the desired goal in practicing the skill.

Corresponding Author** | **Email:** ***Wrabadi69@gmail.com

Conclusions

Following are some inferences that may be formed based on the findings:

Swimming training programs based on good scientific foundations help to develop the digital level of swimming in short distances, especially when current assistive technology approaches like the Aqua com water radio are utilized.

- The researcher's recommended training regimen aimed to improve anaerobic capacities in the movements of the two dolphin legs beneath and above the water's surface for short distances (25 m).

- Appropriate education and training exercises for the target sample during training using the Aqua com water wireless device, which are effective in improving swimmers' performance, raising their digital level, and achieving a higher achievement, particularly in improving the speed of the dolphin legs' movements.

Second: Recommendations

The following recommendations can be made based on the study's findings and conclusions:
- Using Aquacom wireless communication devices in applying the proposed aquatic training program, which the researcher prepared in developing the digital level and achieving short distances in developing the speed of the two dolphin legs' movements, especially after the start skill.

We're working on incorporating educational technologies with music and sports songs during training sessions because they have such a powerful impact on generating enthusiasm and inspiration for swimming performance.

Disseminating the findings of the current study to those who are interested and researchers in this field so that they can be used to design training programs for improving swimming achievement and digital level. The dolphin legs, especially after free swimming begins, the chest, and the butterfly.

Before developing training programs to improve and develop swimming skills, pay close attention to the qualities and level of swimmers, especially among female swimming teams.

Corresponding Author** | **Email:** ***Wrabadi69@gmail.com

references:

A- Arabic references:

Abu Tayeb. Muhammad (2015), The effect of a proposed training program using harmonic exercises on kinetic satisfaction and some kinematic variables in butterfly swimming, Mutah for Research and Studies, Humanities and Social Sciences Series, Volume (30), First Issue, Jordan

Bani Alim and others (2009), The Impact of a Suggested Training Program to Develop the Dolphin Movement in the Streamlining Stage in Swimming, a Published Master's Thesis, The Third International Scientific Conference Towards a Future Vision for a Comprehensive Physical Culture, Faculty of Physical Education, Yarmouk University, Irbid - Jordan.

Jarrar, Tamer and Orabi, Samira (2010, The Impact of Information and Communication Technology on Educational Outcomes in Swimming Crawling on the Back for Students of the Faculty of Physical Education at the University of Jordan, 2010), (5) An-Najah University Journal for Research (Humanities), Volume 24.

Rabadi. Wisal. (2019) The effect of a training program on improving achievement in swimming fins for female students of the Faculty of Physical Education at Yarmouk University, for the Seventh International Conference on Social Sciences / Ankara, Volume 7, Turkey.

Al-Rabadi, Wisal (2018) The Effect of Water Flexibility Exercises to Improve the Trunk Angle in Chest Wave Swimming, Al-Manara Magazine - Al-Bayt, Volume 2, Jordan

Al-Rabadi, Wisal. (2009) The effect of computer use in teaching abdominal crawl swimming among female students of the Faculty of Physical Education / Yarmouk University, Human and Social Sciences Series, Volume (25), Yarmouk Journal

Rabadi, Wisal. (2015). The effect of using Pilates exercises to improve breathing and relaxation among female students of the Faculty of Physical Education at Yarmouk University, Al-Manara Journal for Research and Studies, Volume (21), Issue 4/A, Al al-Bayt University, Jordan.

Sabbeha, and others (2008), The effect of a suggested pattern for taking inhales in swimming butterfly, and the effect of that pattern on some kinematic variables, a master's thesis published by Yarmouk Research. ISSN (1023-0165) Series of Humanities and Social Sciences, Irbid, Jordan.

Al-Widyan, Hassan Mahmoud, (2009), the impact of the proposed training program on the development of dolphin movement in the stage of slipping in swimming, crawling on the abdomen, the third international scientific conference .

Foreign references:

Alrabadi. Wisal. (2021), effect of the training program on strength improvement related to the crawl stroke on female physical education faculty students at Yarmouk Unversity.PalArch's Journal of Archaeology of Egypt /Egyptology 18 (1567-214X), 15

Chatard,J.;girold,S;Cossor,G.@Mason, B(2002). Swimming Strategy for VDH, Thorpe, Rossdino@ the otherFINALISTS IN THE 200M Freestyle at the Sydney Olympic

Corresponding Author** | **Email:** ***Wrabadi69@gmail.com

Games. World Swimming Science congress (2002), Saint- Etienne, France.

Dieter Grauman (1999). Entwicklung koordinativer Faehigkeiten durch Aktivitaet im Wasser, Klausdorf, Germany.

Dieter Grauman (1999). Entwicklung koordinativer Faehigkeiten durch Aktivitaet im Wasser, Klausdorf, Germany

Jan M. H. & et. Al. (1989) the relation of stroke frequency, force, and EMG in crawl tethered swimming. Pelham Books Ltd. London, P.183-189.

Kurt, Wilke, (1986), Coaching the young swimmer. Pelham Books Ltd. London. p.300.

Latte, jurimae, Maestuj, purgep, pramsonr, Haljastek, Kekkonen KL Rodriguez FA jurimae (2010), Physiological, Biomechanical and anthropometrical predictors of sprint swimming performance in adolescent swimmers. www.pubmed.com

Latte, jurimae, Maestuj, purgep, pramsonr, Haljastek, Kekkonen KL Rodriguez FA jurimae (2010), Physiological, Biomechanical and anthropometrical predictors of sprint swimming performance in adolescent swimmers. www.pubmed.com

Martens, J. & Daly, D, (2012), Qualitative Evaluation of Water Displacement in Simulate Analytical Breaststroke Movements, Journal of Human Kinetics volume 32, 53-63.

Martens, J. & Daly, D, (2012), Qualitative Evaluation of Water Displacement in Simulate Analytical Breaststroke Movements, Journal of Human Kinetics volume 32, 53-63.

Matheson, E, Hwang, Y, Romack, J, Whiting, (2011) W, & Vrongisitions, K, A Kinematic analysis of the breaststroke kick, Portuguese Journal of Sport Sciences, Biomechanics in Sports 29, 11 (Suppl. 2),331-334.

Matheson, E, Hwang, Y, Romack, J, Whiting, (2011) W, & Vrongisitions, K, A Kinematic analysis of the breaststroke kick, Portuguese Journal of Sport Sciences, Biomechanics in Sports 29, 11 (Suppl. 2),331-334.

Reischle, K. (2000). Schwimmen: Bewegungen lernen; Trainieren; Spielen. Würzburg, Germany: Diesterweg.

Reischle, K. (2000). Schwimmen: Bewegungen lernen; Trainieren; Spielen. Würzburg, Germany: Diesterweg.

Sideraviciute S, Gailiniene A, Visagurskiene K, Vizbaraite D, (2006), The effect of long-term swimming program on body composition, aerobic capacity and blood lipids in 14-19-year aged healthy girls

Sideraviciute S, Gailiniene A, Visagurskiene K, Vizbaraite D, (2006), The effect of long-term swimming program on body composition, aerobic capacity and blood lipids in 14-19-year aged healthy girls.

Ungerechts, B., Volck, G., & Freitag, W. (2009). Lehrplan Schwimmsport, Band 1. Schorndorf: Technik Hofmann.

Wang, N. & Liu, Y. (2008). The Coordination and Dynamics of Butterfly Stroke, ISBS Conference, July 14-18, Seoul, Korea, 466.

www.oceantechnologsystem.com, Ocean Technology Systems, Gurdian Full, Face Mask Ownes Manual, Copyright 2008 by unlersea IN. USA

Corresponding Author** | **Email:** ***Wrabadi69@gmail.com

The first week: It includes (3) units as follows:

Week one goal: to strengthen the movements of the legs with / without the use of flippers

lcontent	Exercise	Intensity	Repetition	Relative comfort	Comments
Introductory part 10 d	1. General warm-up for all parts of the body 2. Explain how to operate the device with the given exercise mechanism	Medium	Average once per unit		
Main part 30 minutes	1. Exercising the movements of the dolphin legs using the fins and the arms extended in front of the body above the surface of the water x 25 meters. 2. Dolphin legs movement exercise without using fins and arms extended in front of the body above the water surface x 25 meters. 3. From the starting base jumping: within 15 m the movements of the dolphin's legs and arms beside the body / the maximum possible speed 95% and completed by free swimming and returning from the back position and arms to the side of the body movements of two dolphin legs with an intensity of 65%.	75% 70% 95%	5 times 3/during the week 5 times 3/ week 5 times 2 Weeks	2 minutes 2 minutes 3 minutes	Ensure that the performance technique is set. Hear corrective instructions and directions Relaxation Encouraging students to perform well
Closing part 5 minutes	Freestyle, back, chest	50%		سباحه حره، ظهر،صدر	Complete relaxation with focus on breathing

The second week: It includes (3) units as follows:

The goal of the second week: strengthening the movements of the legs above and under the water

Content	Exercise	Intensity	Repetition	Relative comfort	Comments
Introductory part 10 d	General warm-up for all parts of the body 2. Explain how to follow up each student through the device.	Medium	Once every unit		
Main part 30 minutes	1. Freestyle and backstroke using fins for 5 minutes 2. Diving from the edge of the basin 25 m Performing the movements of the two legs of the dolphin using the fins at a depth of 2 m, a distance of 15 m at maximum speed and supplemented by the movements of the two legs of the dolphin at the level of the water surface under the water from the back position 3. The same exercise as the previous exercises underwater at a depth of 1.3 m without using the fins at a distance of 25 m and the return is relaxed from the side position of the movements of two dolphin legs	65% 3 times per week 10 times per week	3 times per week	2 minutes 1 minute 3 minutes	Relative rest between each exercise Relaxation Providing encouragement feedback through the device Follow the student and focus on the sense of speed
Closing part 5 minutes	Freestyle swimming using fins				

Corresponding Author** | **Email:** ***Wrabadi69@gmail.com

The third week: It includes (3) sessions as follows:
The goal of the third week: to maintain the position of the body in one path while swimming for the movements of the dolphin legs.

Content	Exercise	Intensity	Repetition	Relative comfort	Comments
Introductory part 10 d	Swimming two leg movements dolphin free arms using flippers and back swimming back	60%	54 minutes	1 minute	Focus on the source of movement from the hip joint
Main part 30 minutes	1. Exercising in the water First: In different positions (vertical) (prone, front, back), at the level of the track surface, place the floating board between the arms and move the legs for dolphin movements, each position for a minute. 2. From the starting base 10 x 25 meters, focus on the number of movement of the two dolphin legs, using the fins, for a distance of 25 meters under the water, and return to a free and relaxed swim. 3. Focus on cutting a distance of 25 m above the water at the maximum speed possible for the movements of the two dolphin legs from different positions (front, side, rear) without using the fins, Taking into account the position of the arms extended in front of the body.	70% 75% 70-80%	3times 10 times 10 times	30 seconds 35 seconds 40 seconds	Encouraging performance with music Provide feedback
Closing part 5 minutes	Calculating the number of runs within 5 minutes using the fins	60%	5 minutes		Enthusiasm for posts

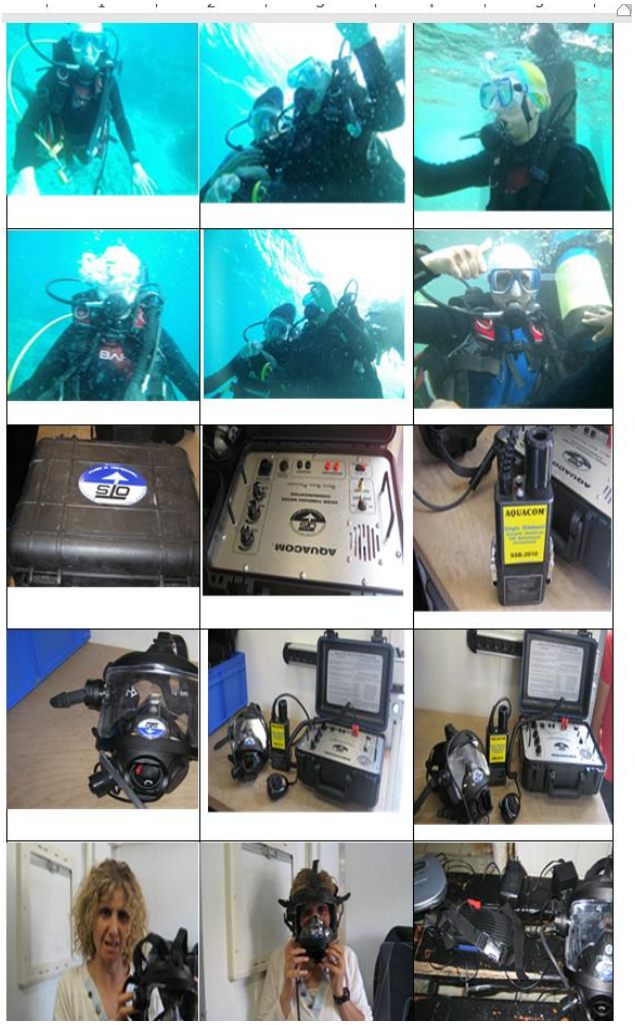
Corresponding Author** | **Email:** ***Wrabadi69@gmail.com

Fourth week: It includes (3) units as follows:

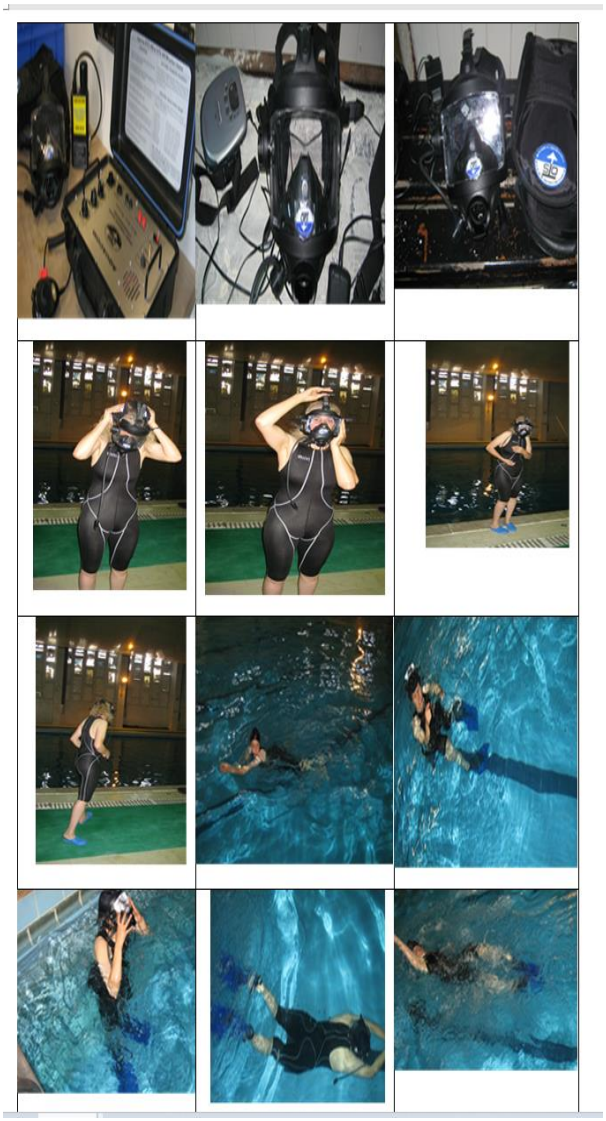
The goal of the fourth week: developing achievement and improving the digital level.

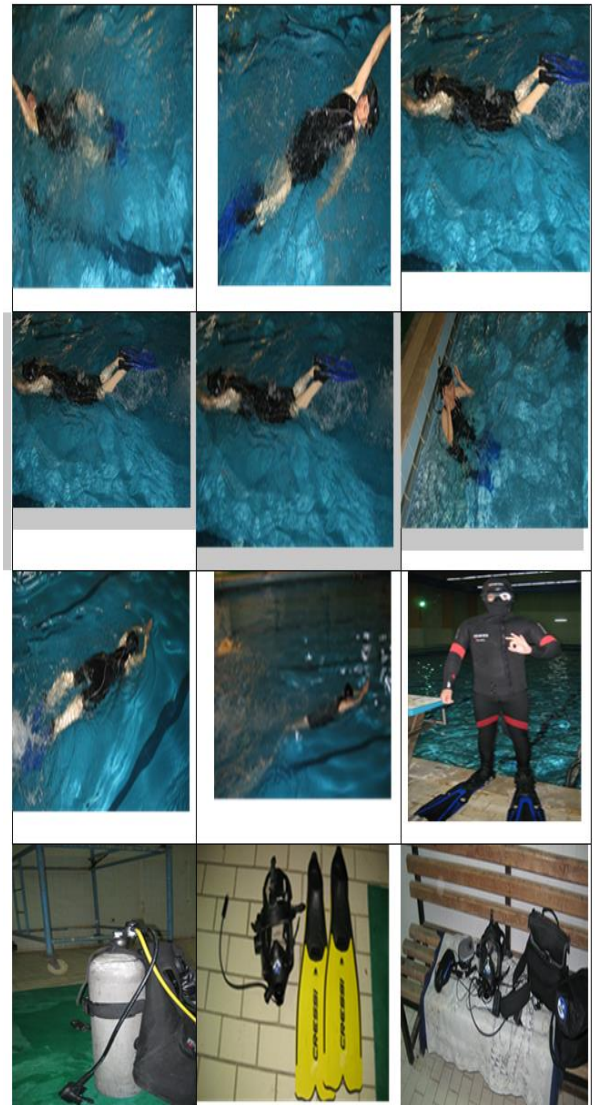
Content	Exercise	Intensity	Repetition	Relative comfort	Comments
Introductory part 10 d	1. General warm-up for all parts of the body 2. Explanation of the exercises				
Main part 30 minutes	1. Exercising in the water 2. Depth Zone: Snorkeling from an upright position, two dolphin legs with both arms high. 3. Diversified swimming using fins, 300 meters (100 meters intermittent dolphin swim, intensity 90%). 3. 100m backstroke with 80% intensity, 4. 100m freestyle swim with 70% intensity. 4. Determination of specific points along the pelvis of 25 m, the gradation of speed for the movements of the two legs of the dolphin under water, using the fins and without the fins	70% 70% 70%80%, 90% 70%, 80%, 90%	20 times every week 3 times per week 10 times per week	30 seconds 35 seconds 1 minute 1 minute	Alert students to determine the path well. Provide corrective feedback
Closing part 5 minutes	Breaststroke	60%			Relaxation

Some clarification pictures



*Corresponding Author | Email: *Wrabadi69@gmail.com*





*Corresponding Author | Email: *Wrabadi69@gmail.com*