

The Impact of a Training Program Based on TOT Principles on Some Skill and Psychological Determinants of Swimming Coaches

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Introduction and Research Problem:

The current era is witnessing tremendous development in various individual and team sports, most notably swimming. This necessitates keeping pace with this progress and development by working on qualifying and developing various training personnel and raising their skill, technical, and psychological efficiency. The success of the training process in swimming depends on the coach's ability to accurately analyze various training situations and apply diverse training methods that align with the swimmers' abilities and potential. Given that skill and psychological factors are among the most important determinants that contribute to improving the overall level of coaches, it has become essential to prepare training programs based on modern principles that will contribute to improving their various abilities and skills, thus enabling them to achieve development. And progress.

Therefore, in order to create an effective and high-achieving player or team, a coach capable of developing and cultivating this quality in the players is essential. To achieve this, a successful sports coach must possess the necessary qualifications, leadership skills, and support to ensure success in their coaching career. They must be familiar with the scientific and training methods and theories they employ and have a specific training philosophy with its own goals, objectives, and values that positively impact the players and the team (10:12).

Hence, the need arises for a competent coach who understands the scientific principles, knowledge, information, and skills necessary for the success of the training process. This enables them to fulfill their duties, responsibilities, and functions. This can only be achieved if the coach receives sufficient professional training that qualifies them to perform their various main tasks. Consequently, the success of the training process and the development of training programs for swimmers are fundamentally based on the competence of the sports coach in technical, administrative, tactical, and skill-related aspects(5 : 15)

The focus should be on the proper preparation and qualification of swimming coaches, as swimming differs from other sports in its use of water for teaching and training. Therefore, swimming coaches bear the responsibility of training and ensuring the safety of trainees. Consequently, the bodies responsible for qualifying and preparing swimming coaches, such as the Egyptian Swimming Federation, the Olympic Academy, and other relevant authorities, must focus on standardizing the training and qualification process. This includes unifying programs and technical, skill-based, and knowledge-based tests, and only licensing swimming coaches who have reached a high level of technical and knowledge-based qualification and have passed all required professional standards satisfactorily.(3 : 118)

Training of Coaches (TOT) programs are among the modern programs and approaches currently used to train coaches and develop their skills in various areas, including knowledge, skills, and attitudes. Knowledge relates to understanding the scientific content of the field of specialization, while skills concern the design and management of various training programs. Attitudes relate to the values and motivational aspects that drive effective performance. In light of this, these principles are considered significant tools for developing coaches' capabilities and enhancing the quality of their training(15 : 28)

Through a review of numerous Arabic and foreign references and studies addressing the training of coaches in general and swimming coaches in particular, such as the studies by **Shehab Kamal and Mohamed Hassan (2025)**, **Mohamed Abdel Fattah Aslan (2022)**, **Fadel Mohamed Zehni (2020)**, **Basem Saeed Mohamed (2019)**, and **Maha Mounir Ayoub (2019)**.

Through their work and observations of numerous coaches in various sports clubs, researchers noted a clear disparity in the skill and psychological attributes of the majority of coaches in terms of their professional, technical, and administrative performance. They also observed a weakness in their ability to scientifically plan training programs and manage situations within swimming pools, as well as a limited capacity for communication and knowledge transfer to trainees. Most coaches rely on personal experience and traditional training practices without employing modern scientific methods or effectively utilizing technological advancements in sports training. This has led to a decrease in the effectiveness of the training process and a delay in the development of most swimmers.

Based on the above observations, the researchers concluded that it is necessary to design a training program based on the principles of Training of Trainers (TOT) to improve certain skill and psychological attributes among swimming coaches and enhance their cognitive, technical, and practical abilities. These training principles represent a modern approach that focuses on preparing and qualifying coaches to be effective.

They are able to effectively transfer their experiences and skills to others, which positively impacts the training process, improves training quality, and consequently enhances the ability of various swimmers to achieve record-breaking performances.

Research Objective:

This research aims to design a training program based on the principles of Training of Trainers (TOT) and to determine its impact on the skill and psychological determinants of swimming coaches under study.

Research Hypotheses:

- 1- There are statistically significant differences between the pre-test and post-test mean scores in some skill and psychological determinants of swimming coaches, favoring the post-test.
- 2- The percentage changes between the pre-test and post-test mean scores differ in some skill and psychological determinants of swimming coaches, favoring the post-test.

Research Terminology:

-Swimming Coach:

Researchers define a swimming coach as "the person responsible for planning and implementing various training programs and units for swimmers in order to equip them with the various physical, technical, and tactical skills that contribute to achieving their athletic goals.

" TOT Principles:

Moton (2022) defines the ToT principles as "a training methodology aimed at training coaches by providing them with the necessary knowledge, skills, and information that contribute to improving their training competencies, enabling them to deliver high-quality training content to others (17: 3)

Research Procedures:**-Research Methodology:**

The researchers used the experimental method due to its suitability to the nature of this research. They employed a single-group experimental design using pre- and post-testing.

-Research Population:

The research population consisted of (75) swimming coaches in Minya Governorate for the 2024-2025 sports season who had completed the basic sports coaching course.

- Research Sample:

The researchers purposively selected the main research sample from swimming coaches in Minya Governorate who had completed the basic sports coach training course. This sample consisted of (40) coaches, representing (53.33%). A pilot sample was also selected from the same research population but outside the main sample, comprising (30) coaches, representing (40.00%). (5) coaches, representing (6.67%), were excluded due to their failure to regularly attend the proposed training program. Table (1) shows the numerical distribution of the research population and sample.

Table (1)

Numerical Distribution of the Research Population and the Main and Pilot Samples (n = 75)

SAmple	number	Percentage
Main research sample (for implementing the proposed training program according to TOT guidelines)	40	53.33%
Experimental research sample (for conducting the scientific procedures for the scale under investigation)	30	40%
Excluded	5	6.67%
Total	75	100%

Research Sample Selection Criteria:

- The coaches in the research sample must be registered with the Egyptian Swimming Federation.
- They must have completed the basic sports coaching course.
- They must have a strong desire to implement the units of the proposed training program.

Normal Distribution of the Research Sample:

The researchers ascertained the extent of the moderate distribution of the members of the main research sample in the light of the variables (skill and psychological determinants) of the swimming coaches under study, and Table (2) shows this.

Table (2)
Mean and median, standard deviation, torsion coefficient and flattening coefficient of skill and psychological determinants of swimming coaches (basic research sample) (n = 40)

Flattening coefficient	Torsion coefficient	Standard deviation	Broker	Arithmetic Average	Unit of Measurement	Variables
-0.99	0.67	2.35	11.00	11.53	degree	Skill Determinants
2.00	0.96	3.67	13.50	14.68	degree	Psychological determinants

It is clear from Table (3) that the torsion coefficients of the basic research sample of the skill and psychological determinants scale of the swimming coaches under study are limited between (0.67 : 0.96) and the flattening coefficients of the variables under study are limited between (2.00 : -0.99) and all of them fall between ± 3 , which indicates the moderation of the frequency distribution of the basic research sample.

Fourth: Data Collection Tools:

To collect data for the research, the researchers used the following tools:

- a. Data registration form for the swimming coaches in question.
- B. Skill and Psychological Determinants Scale for Swimming Coaches Prepared by Researchers
- c. The proposed qualifying program according to the TOT rules for swimming coaches.

A- Data Registration Form for the Swimming Coaches in Research:

The researchers designed the data registration form for the swimming coaches in question, then this form was presented to the

experts in Appendix (1) to express their opinion on the suitability of the form under study to be used in recording the data of swimming coaches, and the judges expressed their opinion on the form as valid and appropriate for recording the data of the instructors in question.

B- Skill and Psychological Determinants Scale for Swimming Coaches: (Prepared by / Researchers)

To design a scale of skill and psychological determinants for swimming coaches, the researchers followed the following steps:

Steps to build the scale:

To build and design a scale of skill and psychological determinants for swimming coaches, the researchers followed a set of steps, the most important of which are the following:

1- The objective of the scale, which was to evaluate the level of skill and psychological determinants of the swimming coaches participating in the implementation of the proposed qualifying program according to the rules of (TOT), was determined as one of the expected results of participation in such a program.

2- The researchers reviewed many scientific references and studies, whether Arab or foreign, that dealt with the skill and psychological determinants of various groups, such as the study of "**Shehab Kamal Al-Khalayleh, Mohamed Hassan Abu Al-Tayeb**" (2025), "**Bassem Saeed Mohammed**" (2019), and "**Tariq Hassan**" Al-Hajjiyah (2018), "**Ali Shehata Ali et al**" (2016).

3- In the light of the previous studies and researches, whether Arab or foreign, the axes of the skill and psychological determinants scale were identified, then the researchers presented them to a group of experts in the field of water sports training, provided that their experience in the field should not be less than (10) years (Appendix 1) in order to express their opinion on the axes, and Table (3) shows this:

Table (3)

Experts' opinions on the appropriateness of the axes of the skill and psychological determinants scale For Swim Instructors (n = 9)

Percentage	Expert Opinions		axes	M
	Disagree	I agree		
100%	—	9	Skill Determinants	1.
44.44%	3	4	Social determinants.	2.
77.77%	2	7	Psychological determinants.	3.

It is clear from Table (3) that the following:

- The percentage of experts' opinions on the appropriateness of the axes of the skill and psychological determinants scale for the swimming coaches under study ranged between (44.44%: 100%), and based on the opinions of the experts, (4) axes were approved because they obtained more than 70% of the group of experts' opinions, due to the suitability of these axes with the nature and characteristics of the sample under study.

4- The researchers formulated a set of phrases for each axis of the scale, where the number of phrases reached (17) phrases distributed on the axes, and when formulating the phrases, it was taken into account that the phrases should be easy, simple and clear in meaning, while staying away from difficult phrases, and avoiding the use of words that carry more than one meaning.

5- The researchers presented the agreed axes and phrases to a group of experts in the field of water sports (Appendix 1) in order to express their opinion on the appropriateness of the phrases for the axes of the scale (Appendix 4), and Table (4) shows this.

Table (4)

The number of phrases that were deleted, added or modified from the initial image of the Skill and Psychological Determinants Scale among swimming coaches according to the opinions of the experts (n = 9)

Relative importance	Number of final phrases	Number of phrases added	Numbers Phrases which was done Modify	Number of deleted phrases	Number of phrases in the initial image	axes	M
47.05%	8	-	9 , 11 , 16	-	8	Skill Determinants	2
52.59%	9	-	17 , 20	-	9	Psychological determinants	3
100%	17	-	5		17	Total	

It is clear from Table (4) that the following:

No phrase of the scale has been deleted because all the phrases have percentages greater than 70% of the experts' agreement, and no phrase has been added, and thus the final image of the scale becomes composed of (17) phrases. Appendix 5)

6- The researchers formulated the phrases of the scale in its final form after modifying the wording of some phrases according to what the experts pointed out, and in light of this, the number of phrases of the scale in its final form reached (17) phrases distributed on the axes under study.

7- To correct the scale, the researchers set a triple rating scale based on the opinions of experts, and the statements were corrected as follows: (Yes,

Sometimes, No) with the distribution of scores (3, 2, 1) in the direction of the positive statements.

Scientific Parameters of the Skill and Psychological Determinants of Swimming Coaches Under Research:

A. Honesty:

To calculate the validity of the scale under study, the researchers used the following:

(1) Truthfulness of the content:

The researchers presented Scale In its initial form (Appendix 4), which consists of (2) two axes and (17) is a group of experts in the field of Water Sports Training Texture (9) Experts (Appendix 1) in order to express an opinion on the appropriateness of Scale In what it was set for, whether in terms of the axes and phrases of each axis and the suitability of those phrases for the axis to which they belong, It has been shown that **that the percentage of expert agreement on the phrases Scale** The research ranged between (77.77%: 100%) Thus No phrase of the scale has been deleted because all the phrases have a percentage higher than 70% of the expert agreement, and no phrase has been added to become the image. **Final Scale Component Who is it** (17) Phrase (Appendix 5) .

(2) The Truth of the Hypothetical Composition :

To calculate the validity of the scale, the researchers used the hypothetical composition validity (internal consistency) by applying it to a sample of (30) swimming instructors from the research community and not the main sample of the research, then the researchers calculated the correlation coefficients between the score of each phrase and the total score of the axis to which it belongs, as well as the correlation coefficients between the score of each phrase and the total sum of the scale, and the correlation coefficients between the total scores of each axis and the total sum of the scale were calculated, and tables (5), (6)), (7) The result is shown respectively.

Table (5)

Correlation coefficients between the score of each phrase of the Skill and Psychological Determinants Scale of Swimming Coaches

The total sum of the axis to which it belongs (n = 30)

Psychological determinants		Skill Determinants	
Link	Ferry	Link	Ferry
0.75	9	0.91	1
0.80	10	0.85	2
0.90	11	0.69	3
0.82	12	0.87	4
0.93	13	0.90	5
0.68	14	0.82	6
0.84	15	0.94	7
0.90	16	0.74	8
0.77	17		

The tabular value (t) at degree of freedom (28) and the significance level (0.05) = 0.361

It is clear from Table (5) that the following:

- The correlation coefficients ranged between the score of each phrase of the Skill and Psychological Determinants Scale of Swimming Coaches and the total sum of the axis to which it belongs between (0.68 : 0.94), which are statistically significant correlation coefficients, which indicates the validity of the internal consistency of the Skill and Psychological Determinants Scale under study.

Table (6)

Correlation coefficients between the score of each phrase of the Skill and Psychological Determinants Scale of Swimming Coaches

The total sum of the scale (n = 30)

Psychological determinants		Skill Determinants	
Link	Ferry	Link	Ferry
0.72	17	0.87	9
0.77	18	0.82	10
0.85	19	0.66	11
0.76	20	0.83	12
0.91	21	0.82	13
0.64	22	0.80	14
0.80	23	0.91	15
0.78	24	0.72	16

The tabular value (t) at degree of freedom (28) and the significance level (0.05) = 0.361

It is clear from Table (6) that the following:

- The correlation coefficients ranged between the score of each phrase of the Skill and Psychological Determinants Scale of Swimming Coaches and the total sum of the scale between (0.64 : 0.91), which are statistically

significant correlation coefficients, which indicates the validity of the internal consistency of the Skill and Psychological Determinants Scale under study.

Table (7)

Correlation coefficients between the sum of the scores of each axis of the Skill and Psychological Determinants Scale For swimming coaches and the total scale (n = 30)

Correlation coefficient	axles	M
0.93	Skill Determinants	1
0.85	Psychological determinants	2

The tabular value (t) at degree of freedom (28) and the significance level (0.05) = 0.361

It is clear from Table (7) that the following:

- The correlation coefficients ranged between the sum of the scores of each axis of the Skill and Psychological Determinants Scale for swimming coaches and its total between (0.85: 0.93) which are statistically significant correlation coefficients, which indicate the validity of the internal consistency of the skill and psychological determinants scale.

Constancy:

To calculate the stability of the skill and psychological determinants scale of the swimming coaches under study, the researchers used the Cronbach's alpha-coefficient by applying it to a sample of (30) swimmers from the research population and not the main sample of the research, and Table (8) shows this.

Table (8)

Stability Coefficients Using the Alpha-Cronbach Coefficient of Skill and Psychological Determinants Scale For Swim Instructors (n = 30)

Cronbach's alpha coefficient	axles	M
0.78	Skill Determinants	2
0.82	Psychological determinants	3
0.95	Total Grade	

It is clear from Table (8) that the following:

- The values of Cronbach's alpha coefficients for the skill and psychological determinants scale of swimming coaches ranged between (0.78: 0.95) which are statistically significant coefficients

which indicate the stability of the skill and psychological determinants scale under study.

c. The proposed qualifying program according to the TOT rules for swimming coaches.

The researchers reviewed many previous references and studies, whether Arab or foreign, such as "**Dalamitros A.A., et al** " (2023), "**Mohamed Abdel Fattah Aslan**" (2022), and "**Ahmed Abdel Aziz Mohamed**" (2021) in order to determine the elements of the proposed rehabilitation program according to the rules of the TOT In order to present them to the experts in Appendix (1) in order to express their opinions towards those elements, the following will be clarified the opinions of the experts towards the elements of the program, which are as follows:

1- The philosophical basis of the proposed rehabilitation program:

The philosophy of the proposed rehabilitation program is based on the idea that the role of the successful coach is not limited to the transfer of skills to the trainees only, but his role goes beyond that as it is one of the basic elements in the transfer of science and knowledge and the design of various training programs that are motivated and oriented towards the training of swimmers in order to make the possible use of their abilities and employ them towards achieving sports achievement in various sports events and competitions.

In light of the rapid changes that the sports field is going through, it was necessary to qualify swimming coaches according to scientific rules that contribute to preparing them in an integrated preparation in various skills, technical, professional, personal and psychological aspects, by providing them with various skills and knowledge that qualify them to be coaches capable of communicating well with swimmers, as well as having the ability to design and plan various training programs that suit the abilities and skills of swimmers, in addition to the ability to continuously evaluate them in order to ensure that they are able to Performance efficiency in general.

2- The general objective of the proposed rehabilitation program:

The proposed qualification program aims to train and prepare swimming instructors according to the rules of Training of Trainers (TOT) in a way that contributes to raising their professional, personal, technical, skillful, psychological and training efficiency in accordance with international training standards.

3. Procedural objectives of the proposed rehabilitation program:

By the end of the program, the trainer will be able to:

- Plans various training programs for swimmers according to codified scientific rules and foundations.
- It uses various modern training methods and methods that contribute to improving the physical and skill level of swimmers.
- Develop himself professionally, personally, skillfully, and training.
- The training season is planned in a way that contributes to achieving the sporting achievement of the swimmers.
- It employs various modern tools and techniques in the training process.
- Evaluates the performance of various swimmers and provides periodic reports on their physical, technical and skill condition.

4- Foundations of developing the proposed rehabilitation program:

There are many foundations that must be taken into account when building a qualifying program according to the rules of (TOT), the most important of which are the following:

- The proposed qualifying program should be developed in the light of the general rules of training of trainers (TOT) courses.
- The program should take into account the gradual presentation of educational experiences from easy to difficult, and from simple to complex.
- The program should include a variety of training activities that contribute to improving the level of trainees such as (electronic lectures, interactive presentations, workshops, and role acting).
- The program should take into account the balance between the theoretical and practical aspects in accordance with the nature of the trainer's field work.

5- The time plan for the implementation of the proposed rehabilitation program:

The researchers surveyed the opinion of a group of experts in the field of water sports (Appendix 1) about determining the total duration of the program as well as the number of weekly training units, and the percentage of experts' opinions on the time planning of the components of the program ranged between (77.77% to 100%), and the researchers satisfied (70%) of the experts' approval

to accept the program's axes, and from the above, it is clear that the following:

- Total time of the program = (8) weeks.
- Number of training units per week = 2 units per week (Sunday - Wednesday).
- The number of training units during the program as a whole = 16 units.
- The time of the training unit is (90) BC.

Steps to implement the research:

- Survey Study:

The researchers conducted a survey study on the number of 30 Swim Coach from the same research population and from outside the main research sample during the period from 22/2/2025 AD and up to 27/2/2025 AD with the aim of identifying the following:

- Validity of the tools used to conduct the program.
- Scientific Parameters of the Skill and Psychological Determinants Scale in terms of Honesty and Consistency.

- Results of the survey study:

The results of the survey study resulted in:

- Validity of the tools and devices used in the proposed rehabilitation program .
- The validity and consistency of the skill and psychological determinants scale of the swimming coaches used in the research was ascertained.

- Implementation of the program:

After identifying the basic variables and the tools used, the researchers performed the following:

- Tribal Measurement:

The researchers conducted a pre-measurement of the skill and psychological determinants scale of the swimming coaches under study from 2/3/2025 to 4/ 3/2025 .

- Program Implementation:

Commencement of Implementation The proposed rehabilitation program according to the rules of (TOT) on the trainers of the basic sample under study in Period from Wednesday 5/3/2025 Until Sunday, 27/4/2025 For (8) weeks and consists of (16) Module Training in the Reality (2) two units per week .

- Telemetry :

The dimensional measurement of the skill and psychological determinants scale of swimming coaches was carried out under the same conditions as in the pre-measurements, from 28/4/2025 to 29/4/2025.

- Statistical method used:

To calculate the results of the research, the researchers used the following statistical methods:

- Arithmetic average .
- Broker.
- Standard deviation.
- Torsion coefficient .
- coefficient Link Pearson .
- Percentage change.
- Test (T) for one group.

The researchers were satisfied with the significance level at the level of (0.05) and SPSS-V27 software was used to calculate some statistical parameters.

Presentation and discussion of the results:**Presentation and discussion of the results of the first hypothesis, which states:**

- 1- There are statistically significant differences between the mean scores of the pre- and post-measurements in some of the skill and psychological determinants of swimming coaches and in favor of telemetry.

Table (9)

The Significance of Statistical Differences between the Mean Scores of the Pre- and Post-Measurements in Some Skill and Psychological Determinants of the Swimming Coaches under Study (N = 40)

Impact Size	Cohen (d)	Value (v)	Telemetry		Tribal Measurement		Unit of Measurement	Variables	
			Standard deviation	Arithmetic Average	Standard deviation	Arithmetic Average			
very big	2.02	21.90	5.71	20.72	2.35	11.53	degree	Skill Determinants	
very big	1.78	19.04	6.13	23.99	3.67	14.68	degree	Psychological determinants	

The tabular value of (v) at the degree of freedom (39) and the significance level of 0.05 = 1.685

It is clear from Table (9) that the following:

- The existence of statistically significant differences between the average scores of the pre- and post-measurements of the research sample in all axes of the skill and psychological determinants scale and its total score under study and in the direction of the dimensional measurement, as all the calculated values of (t) are greater than the tabular value of (t) at the significance level of (0.05).
- Cohen's values (d) ranged between (1.78 : 2.02), which indicates that there is a positive and noticeable effect of the proposed rehabilitation program according to the TOT rules on the skill and psychological determinants of the swimming coaches under study.

The researchers attribute the result of the differences between the scores of the pre- and post-measurements of swimming coaches in all axes of the skill and psychological determinants scale under study to the proposed qualifying program and what it contains on many information, knowledge, activities and trainings that were designed and implemented according to the rules of (TOT), which would directly contribute to the improvement of the various skill and psychological determinants of the swimming coaches under study, as the researchers' consideration of the various scientific foundations represented in the rules of TOT And employing them in building the qualifying program in terms of taking into account the training needs of the trainees in addition to relying on the latest trends in the development of various skill and psychological determinants, with the development of training content that suits all the needs of the trainers with the use of active training strategies, all these factors would contribute positively to the acquisition of the trainers the various required knowledge and skills that contribute to the development of their various skill and psychological determinants and then be more experienced and able to train various swimmers and then the ability To achieve sporting achievement in various sports events and competitions.

This result is consistent with the findings of the study of "**Shehab Kamal, Mohamed Hassan**" (2025), **Dalamitros A.A., et al .** (2023), "**Mohamed Abdel Fattah Aslan**" (2022), "**Bassem Saeed**" (2019), and "**Maha Mounir**" (2019), which indicated that the training programs and packages according to the rules of (TOT)) has a positive effect on various variables, especially the skill and psychological determinants of different samples.

Thus, we find that the researchers have confirmed the validity of the first hypothesis, which states that "there are statistically significant differences between the average scores of the pre- and

post-measurements in some of the skill and psychological determinants of swimming coaches and in favor of the dimensional measurement".

Presentation and discussion of the results of the second hypothesis: which states:

2- The percentages of change between the mean scores of the pre- and post-measurements differ in some skill and psychological determinants of swimming coaches and in favor of telemetry.

Table (10)

Percentage Change Percentages between Pre- and Post-Measurement Scores in the Skill and Psychological Determinants Scale among Swimming Coaches after the Application of the Proposed Qualifying Program (N = 40)

In the direction of measurement	Percentage Change	Average Dimensionality	Average Pre-Measurement	Unit of Measurement	Variables	
Post	79.71%	20.72	11.53	degree	Skill Determinants	Skill and psychological determinants
Post	63.42%	23.99	14.68	degree	Psychological determinants	

It is clear from Table (10) that the following:

- There are differences in the percentages of change rates of the degrees of the dimensional measurements from the tribal of the research sample in all axes of the scale of skill and psychological determinants and the total score of it among the swimming coaches under research, where the values of the percentages of change rates of the variables under study ranged between (63.42%: 79.71%) and in the direction of the telemetry, which indicates the positivity of the proposed rehabilitation program in improving the level of some skill and psychological determinants among the swimming coaches under research .

The researchers attribute The difference in percentage change between the mean of the pre- and post-measurements in all axes of skill and psychological determinants among the swimming coaches under study into The proposed qualifying training program and what it includes includes many theoretical and applied exercises and activities that have been designed according to the rules of the TOT , which was implemented according to codified scientific rules and foundations that would positively affect the level of skill and psychological determinants of swimming coaches and even improve their professional, personal, technical, skillful,

planning and training level, which in turn will reflect positively on the level of performance of swimmers in various sports events, as the level of swimmers and the extent of their ability to achieve records is not only related to the physical and skill aspects of swimmers, but is also related to the extent to which the coach enjoys a high level of skill and psychological determinants. which qualifies him to work with these swimmers, as the coach has the ability to employ all his abilities and skill in implementing the various training units in an organized manner. In addition to his ability to take into account the foundations and principles of training and good planning for various training programs, in addition to his ability to use modern technologies and employ them in the training process, with his ability to take into account the individual differences between swimmers and guide them towards achieving athletic achievement, in addition to his ability to provide psychological support, motivate players and praise them when winning, all of this would contribute to building a successful sports coach capable of keeping pace with all developments in the sports field and has the abilities that qualify him to lead. Swimmers are geared towards winning various local and international competitions.

This is in line with what **Mr. Fakhri (2018)** pointed out, as the scientific qualification of swimming coaches is considered the cornerstone of the coach's profession, as sports training in general and swimming training in particular is not a random work that any individual can do, but it is a work done through qualified people from all scientific and applied aspects to practice the profession efficiently and competently, and the appropriate scientific qualification for the coach to deal with each age stage and the existence of a good system to measure it in the coach represents the way to prepare Highly trained and creative and made an Olympic champion (2 : 3)

This result is consistent with the findings of the study of "**Shehab Kamal, Mohamed Hassan**" (2025), **Dalamitros A.A., et al . (2023)**, "**Mohamed Abdel Fattah Aslan**" (2022), "**Bassem Saeed**" (2019), and "**Maha Mounir**" (2019), which indicated that the training programs and training packages according to the rules of (TOT)) has a positive effect on various variables, especially the training determinants in different samples.

Thus, we find that the researchers have confirmed the validity of the second hypothesis, which states that " the percentages of change between the average scores of the pre- and post-measurements in the scale of the skill and psychological determinants of swimming coaches after the implementation of the proposed qualifying program and in favor of the dimensional measurement."

Conclusions and Recommendations:**- Research Conclusions:**

In the light of the purpose and assumptions of the research, the methodology used, the reference frame of theoretical studies, scientific researches, and the nature of the sample, the following conclusions were reached:

1. The proposed rehabilitation program according to the TOT rules has a positive effect on the level of skill and psychological determinants of the swimming coaches under study, and this is evident through the differences between the results of the pre- and post-measurements in the skill and psychological determinants under study.
2. There was a relative change between the mean scores of the pre- and post-measurements in all axes of the Skill and Psychological Determinants Scale among the swimming coaches under study, as a result of the qualifying program that was designed according to the TOT rules of the swimming coaches under study, where the values of the percentages of change of the physical variables ranged between (63.42%: 79.71%) and in the direction of the dimensional measurement.

Research Recommendations:

In light of the research objectives, procedures and results, the researchers recommend the following:

1. The Egyptian Swimming Federation should pay attention to the study of the various training needs of swimming coaches in cooperation with various sports clubs while making training plans to refine the capabilities of coaches in light of the results of those needs.
2. The necessity of integrating the rules of TOT periodically according to training plans and developing the capabilities of swimming coaches because of their great importance in improving their various skill and psychological determinants.
3. The need for officials to pay attention to the application of various rehabilitation programs periodically for various swimming coaches in line with the current developments in the field of swimming training.
4. The necessity of applying the proposed rehabilitation program according to the rules of TOT to other samples of swimming coaches.

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