THE EFFECT OF A CODIFIED TRAINING PROGRAM ACCORDING TO THE PHYSICAL COMPETENCE SYSTEM IN DEVELOPING SOME PHYSICAL ABILITIES AND COMPLETING A 200-METER FREESTYLE SWIMMING FOR YOUNG

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Abstract

The purpose of this paper is to Preparing a codified training program according to the system of physical competence in developing some physical abilities and completing the 200-meter freestyle swimming for youth. The researcher used the experimental method with the pre and post-test for the experimental and control groups, and the research community was determined, swimming club (Al-Ḥashd ash-Sha bi) Youth Sports Club for the effectiveness of 200 meters free swimming for the 2021 season, numbering (14) swimmers, as the research sample was chosen by a comprehensive inventory method and the sample was divided into two experimental groups and a control group with (7) swimmers for each group A codified training program was applied according to the physical competence system on the experimental group for a period of eight weeks, with three training units per week. The SPSS statistical package was used to process the data and obtain the results. Including the researcher reached the most important conclusion - that a training program is codified according to the system of physical competence in the development of some physical abilities and the completion of the 200-meter freestyle swimming for young people.

Keywords: Physical efficiency system. Physical abilities. Achievement of the 200-meter freestyle swim.

Introduction

Countries in today's world have advanced the concepts of sports training and the use of different methods and means to advance the sports achievements of the various sports, and this has been shown through research and studies conducted on most sports events and games. Swimming is one of the most important sports in which the science of sports training plays a role. Important in achieving the achievement, and through a codified training program according to the system of physical competence for special training that works to create a new state of balance, which contributes to modifying his movements and applying the correct paths, and developing especially the muscular feeling that he is responsible for, so that the swimmer can achieve the performance stages with a smooth movement and physical High even in the case of exerting effort in different directions or any kind of resistance in the middle of the aquarium on the whole body, which restricts the center of gravity of the body in this area, from here and in order to achieve the best results in terms of achieving achievement as well as achieving a development in the level of physical abilities for using This training means

prepares a codified training program according to the system of physical competence to contribute to the advancement of the level of technical and physical performance and to developer achievement.

Research Problem

The modern trend to develop the system of physical adequacy of the body has become to focus on the training program that depends on the development of energy systems in its vocabulary, as we cannot achieve the goals of the training process away from the applications of those systems, where we find in swimming that the records are witnessing a development between each Olympic or And another world championship, but we find that the Iraqi records are still very far from that development in the numbers recorded in such championships, and through the presence of the researcher and specialist in swimming sport academically and in the field, I noticed that there is a weakness in the physical abilities of the swimmers, i.e. a low level of digital achievement, so she decided Preparing a codified training program according to the physical competence system, leading to a scientific research attempt to develop and enhance the training process for swimming in our dear Iraq.

Research objective:

• Preparing a codified training program according to the physical competence system in developing some physical abilities and completing the 200-meter freestyle swimming for youth

• Identifying a codified training program according to the physical competence system in developing some physical abilities and completing the 200-meter freestyle swimming for youth.

Research hypotheses:

• A training program is codified according to the system of physical competence in developing some physical abilities and completing the 200-meter freestyle swimming for youth

Research fields:

• Human field: Swimmers of (Al-Ḥashd ash-Sha bi) Youth Sports Club (200m) freestyle event for the 2021 season

• Time field: (5/6/2021) to (11/8/2021)

• Spatial field: Al Shaab Indoor Swimming Pool / Baghdad Governorate

Research Methodology and Field Procedures

Research methodology

The researcher used the experimental method with the pre and post-test of the experimental group and the control group to suit the nature of the research.

Community and sample research

The research community was determined, swimmers of the Popular Mobilization Youth Sports Club for the event (200 meters) freestyle for the 2021 season, which numbered (14) swimmers, and the sample was divided into two groups, the experimental group and the control group, with (7) swimmers for each group.

Homogeneity and equivalence procedures were carried out for the sample, and the results as shown in the table 1 (Tables 1 & 2).

The means and tools used in the research:

Observation and experimentation, tests and measurements, Arab and foreign sources, a device for measuring height and weight - Al Shaab indoor swimming pool, stopwatch type (Diamond) number (6), Fox whistle type (2), scientific calculator type (Sharp) (Japanese origin) number 1 , type computer.

Tests used:

• Maximum speed swimming 50 meters (Ahmed Thamer Mohsen: 2008)[1].

• Fast strength of the front support arms (Amateur: 1999)[2]

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Table 1: Shows the homogeneity of the sample.

Variables	Measuring unit	Mean	Median	Std. Deviations	Skew ness
Length	Cm	186.12	184	5.563	0.789
Mass	Kg	78.23	78	7.342	0.543
Age	Year	18.65	18	8.459	0.971

Table 2: Shown the equivalence of the tests shows the physical abilities and the achievement of the 200-meter freestyle swimming under investigation for the control and experimental groups.

Variables	Experimental		Control		T value	level Sig	type Sig
	Mean	standard deviation	Mean	standard deviation			
Maximum swimming speed 50 meters	31.751	0.336	32.611	0.431	1.679	0.569	Non sig
Fast strength of the front support arms	9.102	0.478	8.215	0.874	1.673	0.751	Non sig
Endurance swimming speed 150 meters	97.540	0.682	99.641	0.667	1.983	0.941	Non sig
Endurance force (jumping over hurdles with a height of 1-meter count10)	12.134	0.479	13.896	0.431	0.445	0.531	Non sig
Achievement 200m freestyle swim	2.07.120	0.665	2.09.231	0.731	0.776	0.783	Non sig
Significant when the significance value ≤ 0.05 under degree of freedom of 12							

Table 3: Shows the arithmetic means, standard deviations, mean differences, deviations of differences, and the calculated (t) value between the pre and post-tests of the experimental group in the physical abilities and the achievement of the 200-meter freestyle swimming under study.

Variables	Pre-test		Post-test		deviations of differences	T value	level Sig	type Sig
	Mean	standard deviation	Mean	standard deviation				
Maximum swimming speed 50 meters	31.751	0.885	30.542	0.974	0.786	5.762	0.002	Sig
Fast strength of the front support arms	9.102	0.643	10.874	0.673	0.554	4.489	0.002	Sig
Endurance swimming speed 150 meters	97.540	0.741	96.012	0.781	0.872	7.783	0.004	Sig
Endurance force (jumping over hurdles with a height of 1-meter count10)	12.134	0.554	11.874	0.521	0.778	6.741	0.003	Sig
Achievement 200m freestyle swim	2.07.120	0.679	2.06.136	0.641	0.998	3.976	0.003	Sig
Significant when the significance value ≤ 0.05 under degree of freedom of 6								

• Endurance swimming speed 150 meters (Qusay Al-Samarrai and Wahbi Alwan: 2005) [3]

• Endurance force (jumping over hurdles with a height of 1-meter count10) Hanna.R.K.: 2002 [4]

• Achievement in the 200-meter freestyle swim (Osama Ratib and Ali Muhammad Zaki: 1998) [5]

Pre-tests: The researcher conducted the pre-tests in Al Shaab indoor swimming pool / Baghdad governorate on Saturday 5/6/2021.

Exercises used in the research:

The implementation of the training program began on 6/8/2021 until 9/8/2021.

• The duration of the exercises set in weeks: (8) weeks.

• Total number of training units: (24) training units.

• Number of weekly training units: (3) units.

• Weekly training days: (Saturday - Monday - Wednesday).

• The training method used: the high intensity interval training method, the repetitive training method.

Post-tests:

After completing the training program, the research tests were conducted on Thursday 8/11/2021 based on the provision of conditions similar to the pre-tests in terms of (time, place, tools used and the method of conducting the tests). On the closed Olympic swimming pool / Baghdad governorate.

Statistical methods: The search data was processed through the Statistical Package for the Social Sciences (SPSS).

Presentation, analysis and discussion of the results:

Presentation and analysis of the results of the pre and post-tests in the special endurance abilities and the achievement of the 50-meter freestyle swimming in the experimental group and discussed.

Presentation and analysis of the results of the pre and post-tests , the physical abilities and the achievement of the 200-meter freestyle swimming in the control group, and their discussion (Tables 3 & 4).

Presentation, analysis and discussion of the results of the post-tests in physical abilities and the achievement of the 200-meter freestyle swimming under study for the control and experimental groups (Table 5).

Discuss the Results

The results of Tables (4, 5) show that there are significant differences for the research variables between the pre and post-tests for the two research groups and in favor of the post-test. The researcher attributes that the training program is codified according to the physical efficiency system in developing some physical abilities and completing the 200-meter freestyle swimming for youth, the results were significant, that the experimental group advanced its results in the maximum speed variable in the post-tests, and this indicates the effectiveness of the exercises used in the training program in the development of The special physical abilities that contributed to the development of the physical abilities of the experimental group, which affected the development of the maximum speed ability by giving the players a set of exercises that

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Table 4: Shows the arithmetic means, standard deviations, average differences, deviations of differences, and (t) value calculated between the pre and post-tests of the control group in physical abilities and the achievement of the 200-meter freestyle swimming under discussion.

Variables	Pre-test		Post-test		deviations of differences	T value	level Sig	type Sig
	Mean	standard deviation	Mean	standard deviation				
Maximum swimming speed 50 meters	32.611	0.564	31.754	0.672	0.864	7.631	0.002	Sig
Fast strength of the front support arms	8.215	0.786	9.431	0.873	0.963	4.873	0.004	Sig
Endurance swimming speed 150 meters	99.641	0.894	98.890	0.893	0.642	8.443	0.003	Sig
Endurance force (jumping over hurdles with a height of 1-meter count10)	13.896	0.445	12.543	0.631	0.554	4.783	0.004	Sig
Achievement 200m freestyle swim	2.09.231	0.673	2.08.144	0.449	0.785	5.673	0.002	Sig
Significant when the significance value ≤ 0.05 under degree of freedom of 6								

Table 5: Shows the arithmetic means, standard deviations, and the (t) value calculated between the post-tests in the special endurance abilities and the achievement of the 50-meter freestyle swimming under study for the control and experimental groups.

Variables	Pre-test		Post-test		deviations of differences	T value	level Sig	type Sig
	Mean	standard deviation	Mean	standard deviation				
Maximum swimming speed 50 meters	29.752	0.564	30.890	0.456	6.678	0.001	Sig	Sig
Fast strength of the front support arms	12.321	0.653	10.875	0.783	7.843	0.000	Sig	Sig
Endurance swimming speed 150 meters	95.223	0.876	97.112	0.672	3.673	0.004	Sig	Sig
Endurance force (jumping over hurdles with a height of 1-meter count10)	10.633	0.223	11.438	0.481	8.553	0.000	Sig	Sig
Achievement 200m freestyle swim	2.05.110	0.673	2.07.213	0.673	6.842	0.000	Sig	Sig
Significant when the significance value ≤ 0.05 under degree of freedom of 12								

lead to the development of speed ability. These exercises focused on the muscles of the arms and feet of the main muscles responsible for the speed of the swimmer (Dicck Hannula, 2001)[6], The exercises in which the researcher used are standardized exercises in accordance with the physical system and integrated with a physical performance characterized by rapid nature and high motor performance. Also, the development of force characterized by speed is also linked to the development of explosive power through special exercises that are proportional to the conditions and requirements of skill and with certain repetitions (Abu Al-Ela Ahmed Abdel-Fattah: 1997) [7], and the stage of Endurance speed and this distance, whenever the runner keeps the average speed from decreasing with the least possible loss, dementia results in a reduction in the time of achievement, as is the case with the time with achievement during this distance. 2005)[8] The effectiveness of the training program depends largely on the effectiveness of the swimmer's physical efficiency system and how to make the best use of the distance in time, in order to achieve achievement, and that this type of training works to gain the muscles working with these physical abilities and with the same performance movements in the swimming activity (El-Sayed Abdel-Maqsoud: 2001)[9].

Conclusions and Recommendations

Conclusions

• The codified training program according to the physical competence system contributed to the development of physical abilities, but the codified program had the most impact on these variables.

• The codified training program, according to the physical competence system, contributed to the development of the achievement of the 200-meter freestyle swimming event for youth, but the effect of the codified training method is more effective than the traditional method.

Recommendations

• The need for the trainers to pay attention to the distances and swimming events in which the Iraqi level is close to the international level (Asian or international) and to work on developing the swimmers in these events in order to get a better achievement and achieve medals.

• The researcher recommends the necessity of paying attention to the training program codified according to the system of physical competence in the effectiveness of swimming in order to detect errors in technical performance, diagnose them in a scientific and accurate manner, and avoid them in the training program so that the training program becomes suitable for the swimmer.

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Appendix 1: The training used in the research

weeks	Days	Exercise Vocabulary	intensity	number of repetitions	number of totals	Rest between repetitions	rest between exercises
first week	Saturday	-50meter swim Swimming 60 meters Flex and extend your arms parallel to each other in 10 seconds Jumping on boxes of different heights (20 cm, 30 cm, 40 cm)	% 80	10	2	90 sec	2 min
	Monday	Swimming 100 meters 150meter swim From the prone position, bending and extending the arms - jumping over 10 hurdles, 80 cm high	% 80	10	2	2 min	3 min
	Wednesday	-150meter swim Swimming 200 meters -Bend and extend the arms from the position of attachment on the bar, the maximum number Jumping on boxes of different heights (20 cm, 30 cm, 40 cm)	80	10	2	2sec	3 min