

Improving The Speed And Technique of Breaststroke Swimming by Development The Strength Power of A Swimmer

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Abstract:

The article deals with the purpose of improving the efficiency of breaststroke swimming technique by developing the strength of boy's swimmers 12-14 years old.

Keywords: Breaststroke swimming, Training, Improvement, Speed, Explosive power, Strength.

Introduction

In order to develop modern swimming in the world, it is important to improve the competitiveness of swimmers in international sports fields, effectively improve swimming techniques in the training of well-qualified athletes. After Uzbekistan achieved the status of an independent state, in a short period of time, high changes in such sports as swimming took place, which is evidenced by the construction of water sports complexes that comply with international standards, as well as the mass development of water sports and the fact that most of our youth are interested in this sport rose especially high. Special emphasis is placed on the development of children's water sports on a scientific basis, the creation of its organizational foundations. But at the same time, it is precisely the insufficient development of the methodology aimed at improving the brass technique of young athletes engaged in the stage of technical improvement that sets a number of tasks for specialists in the field.

In accordance with the decree of the president of the Republic of Uzbekistan No. 5924 of January 24, 2020 "on measures to further improve and popularize physical education and sports in the Republic of Uzbekistan". [1] According to Decree No. 4877 of November 3, 2020 "on measures to improve the system of training personnel in the sphere of Physical Education and sports and increase scientific health" [2] Number of scientists like V. N. Platonov, Scott Riewald Phd, Scott Rodeo, MD, V. B. Boldiryova, A. Y. Keyno, Kevin G Thompson, Donald P M MacLaren, Adrian Lees, Greg Atkinson made their impact on the issues of swimming technique and development of breaststroke style as well as improving strength and speed of a swimmer. [3,4,5,6]

The Purpose of the Research:

Development and improvement of speed of breaststroke swimming style by training the strength power of swimmers boys 12-14 years old.

Tasks to accomplish in research study:

To achieve the above-mentioned goal, Research was carried out on the basis of the following tasks:

1. Studying the theoretical and methodological foundations of brass swimming techniques in boys swimmers 12-14 years old.
2. Development of a strength power and to improve the technique of brass swimming in boys swimmers 12-14 years old.
3. Justification of the effectiveness of the developed methodology, through pedagogical experience aimed at improving the technique of brass swimming.
4. Development of practical recommendations, putting into practice a methodology aimed at improving the technique of brass swimming.

Research methods: analysis of scientific and methodological literature, pedagogical observation, pedagogical testing, metematic statistical methods.

Organization of research. The experiment was conducted among 20 12-14-year-old swimmers boys and their breaststroke swimming technical training process at swimming pool base specialized children's and adolescent school age of water sports in Tashkent, Uzbekistan.

Research results and its discussion. The following research methods were used to solve the tasks:

Analysis of scientific and methodological literature on the problem of research. Method of questionnaire, pedagogical test, pedagogical experience, methods of mathematical processing of data.

In this work, 12-14-year-old swimmers were selected for the study. The experiment involved 20 swimmers studying at a specialized children's and adolescent school for water sports in Tashkent, and was divided into two groups-experiment (n=10) and Control (n=10). The training process for improving the technique of swimming in the breaststroke swimming style was carried out in volume of 3 hours a week for 6 days. In addition, swimmers were engaged in general physical fitness for 5 hours a week.

The control group divers trained themselves under the TSSIM program, while the experimental group swimmers (n=10) performed complex exercises completed over a period of 6 weeks. The experiment lasted 9 months from January 2023 and September 2023.

Determination of indicators of the level of development of technical and speed abilities of swimmers was carried out control tests in swimmers aged 12-14 years, which includes the following exercises:

1. 30 m run

2. Getting started from start

3. Swimming in the breaststroke style for 25 m with pushing from the start.

4. 50 m swimming in the breaststroke style from the start.

At the beginning of the experiment, we identified indicators of the level of development of speed abilities for experimental and control groups of 12-14 years old. The calculation of the results obtained using the methods was made mathematical statistic, we have listed them in Table 1.

Table-1 initial indicators the level of development of speed abilities for experimental and control groups of 12-14 years old.

Test	Groups		t	t	P
Running 30m, s	CG	5,75±0,90	0,4	2,03	≥ 0,05
	EG	5,63±0,63			
Swim from start	CG	0,77±0,07	0,5	2,03	≥ 0,05
	EG	0,78±0,06			
15m breaststroke swim, s	CG	9,96±1,02	0,01	2,03	≥ 0,05
	EG	9,97±1,23			
50m breaststroke from start, s	CG	38,66±2,49	0,5	2,03	≥ 0,05

Note: CG is the control group, EG is the experimental group,, t is the calculated value, P is the probability of error.

As can be seen in the table, the degree of development of breaststroke swimming speed in swimmers aged 12-14 years in the first stage of the study shows that there is no difference in the between the two groups. This means that the level of development of both groups is in the same conditions.

We have developed exercises aimed at developing the speed of breaststroke swimming for boy's swimmers 12-14 years old. In the experimental group, exercises were carried out 2 times a week to increase the speed of the breaststroke swimming technique in the training cycle.

Water and land exercises were carried out in the amount of 3 Series. The rest between the series was 3 minutes, which allowed the swimmer to recover sufficiently. The single series consisted of 3 sets, the rest between them was 40-60 s. The exercises were performed at maximum speed for 6 seconds, after which the swimmers rested.

Research results and discussion. After a set of exercises that we developed and used to develop speed and technique, we conducted repeated tests from 12-14-year-old brass method swimmers.

As shown in Table 2, we see that the test data obtained at the end has significantly changed the results of the control and experimental group in the indicators.

Tests	Groups		t	t	P
Running 30m, s	CG	5,57±0,72	0,5	2,03	≥ 0,05
	EG	5,47±0,52			
Swim from start	CG	0,76±0,08	1,02	2,03	≥ 0,05
	EG	0,72±0,04			
15m breaststroke swim, s	CG	9,81±0,81	2,1	2,03	≥ 0,05
	EG	9,21±0,93			
50m breaststroke from start, s	CG	39,37±2,7	2,1	2,03	≥ 0,05

Note: CG is the control group, EG is the experimental group,, t is the calculated value, P is the probability of error.

In re-tests conducted at the end of the experiment, results in the indicators are visible and changes in the CG and EG groups. Comparing the final results showed that there were differences.

At the time of the 30-meter run, the results of the swimmers were assessed in CG (well), at the beginning the test was taken their assessment (satisfactory). CG swimmers showed the same result. It should be noted that statistical differences in groups on these indicators are not recorded.

Differences in groups are not recorded in terms of statistical indicators obtained when starting from a start.

In 15 M breaststroke swimming, CG results showed an increase in performance. However, no significant difference was detected. EG swimmers have improved end-to-end swimming times in terms of performance. They showed enough changes.

After the experience in the control group, we found positive changes in the results of the analysis of the competition in the 50-meter breaststroke swimming. No major difference was found in the results shown statistically.

Conclusion. Based on the results of the pedagogical experiment that we conducted, our set of training was determined that the use of breaststroke for the style of swimming is effective, to improve the technique of 12-14-year-old swimmers and increase the speed of swimming.

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