EDUCATING PHYSICAL QUALITIES SPECIFIC TO THE BUTTERFLY EVENTS, DOMINANT IN TRAINING OF JUNIORS SWIMMERS

Narcis Florian NEAGU

Abstract

Provide a high value sports today cannot be conceived without a rationalization, standardization and optimization of the entire training process corresponds to well-established requirements for each level of training. Using methodological and practical structures in preparation, with the imprint of our contribution to improving the content and effectiveness of the methodology used, will increase the level of training junior swimmers.

The subjects investigated. The lot was composed of 24 junior swimmers belonging Emil Racoviță School Sports Club. Develop a physical training program that can determine success in high performance butterfly process. In the literature of swimming I met few works that relate directly to issues of theoretical and practical on the subject. The entire study demonstrated certain progress of the experiment group in front of the control group due to the independent variable of our research.

Keywords: junior swimmers, optimizing physical training

JEL classification: A29: A31

Introduction

The complexity of optimizing physical training causes motor skills combined approach which is most tempting idea and closer to the heart of the matter, seen especially in practical terms. In fact, it is a matter of dosage, ie engage in substance as the dominant driving quality and combine with other qualities, depending on the application process and the branch swimming evidence.

Provide a high value sports today cannot be conceived without a rationalization, standardization and optimization of the entire training process corresponds to well-established requirements for each level of training.

Each sports performance is always in one way or another discovery of new ways to exploit the opportunities and means athlete training.

Purpose

Develop a physical training program that can determine success in high performance butterfly process. In the literature of swimming I met few works that relate directly to issues of theoretical and practical on the subject.

1 Narcis Florian Neagu, Polytechnic University of Bucharest, narcisneagu@yahoo.com
Hypothesis

Using methodological and practical structures in preparation, with the imprint of our contribution to improving the content and effectiveness of the methodology used, will increase the level of training junior swimmers.

Research methods

Scientific documentation. This is the method by which the whole studied literature, as well as various studies and research in the field in terms of physical training of junior swimmers.

Observation method. By this method we followed the training process of swimmers during the experiment.

Two methods were used for observation:
- Direct observation was made both outside the training process, and the inside, i.e. affective and effective participation of observer training lessons.
- Indirect observation was made by studying planning documents and records of the coach.

The experimental method. I followed the sequence of steps of physical training on land junior swimmers and how to adapt it to every swimmer in the sample recorded.

The content of the experiment entailed and other scientific research methods exposed.

Computerized assessment method. This method was used to assess the level of physical training on land in conditions as close to the water. For evaluation were used: computerized evaluation system with accessories Ergos system. Working position was lying face working time was 2 min.

Statistical method mathematics: arithmetic mean, median, standard deviation.

The content of experiment

The subjects investigated

The lot was composed of 24 junior swimmers belonging Emil Racoviță School Sports Club.

Athletes of the research are practicing swimming 8-9 years. They participated in several editions of sports clubs Championships and National Championships for juniors, where they ranked between 1st and 16th place in several branches of samples in different processes.
To verify the hypothesis we divided the study group of athletes, random counting of four, in two samples: one that applies and second experimental study that constitute the control group.

This method of distribution homogeneity determined group of athletes.

Group A – experiment. In preparing this group used independent variable of our research to optimize physical training ashore at junior swimmers.

Group B – control. In training this group was used training plan developed by Professor coach (which includes physical training program on land), but not including independent variable of our research.

Number of hours of training both in water and physical training was identical for both groups.

Periods of research

The research was conducted during a year of preparation.

In this study we have conducted several tests: initial, intermediate and final - made in dynamic within 6 months.

Data recording was carried out as follows:

- Initial testing was conducted in order to know the time of the initial values of the parameters studied.

The subjects in the experimental group intervened during a year of training with working application independent variable.

Place of study

Conducting the experiment and conducted testing on swimming pool of the National Complex "Lia Manoliu".

The main parameters of the evaluation of physical training on land at junior swimmers.

The tests followed up on the following indicators:

1) Testing the level of physical training followed within specific samples carried in water: 100 m. Butterfly, 200 m. Butterfly.

2) Analysis of indices obtained by testing conditions simulator "Ergos" - Active length (cm.), Work (j), active time (ms.) For passive (Ms.), Power (w), load, total mechanical work (kj.) Notes.

Experimental research organization

- The first step was to establish two research groups.
- Establish preparedness planning programming and athletes.
- Develop content operational structures - independent variable.
Educating Physical Qualities Specific to the Butterfly Events, Dominant in Training of Juniors Swimmers

- Conducting tests to assess physical training during junior optimization.
- Data collection and interpretation investigated.

Conducting research

To achieve the goal of this research have made specific ranking criteria means the effect produced on indicators of optimizing physical training on land and hence the outcome of sporting junior swimmers, methodical procedure used was that of the circuit.

This method was created by the British Morgan and Adamson for developing strength under stress.

The process takes its name from the organization which involves passing athletes from workshop to another, working on a number of muscle groups equal to the number of workshops.

Table 1 The procedure Butterfly Events: 100 m, 200 m butterfly

<table>
<thead>
<tr>
<th>Means</th>
<th>No repetition</th>
<th>Breaks (walking and breathing)</th>
<th>No the series</th>
<th>Intensity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trolley traction force inclined 35-40o</td>
<td>45”-1’</td>
<td>A</td>
<td>4</td>
<td>90%</td>
</tr>
<tr>
<td>Lying back, lifting the vertical trunk</td>
<td>45-50</td>
<td>A</td>
<td>4</td>
<td>95%</td>
</tr>
<tr>
<td>Butterfly arms simulator Ergosim</td>
<td>1’30”-2’</td>
<td>A</td>
<td>4</td>
<td>90%</td>
</tr>
<tr>
<td>Jumping straight</td>
<td>1’-1’30”</td>
<td>A</td>
<td>4</td>
<td>95%</td>
</tr>
<tr>
<td>Rotar arms with dumbbells simultaneously before 1 Kg hands</td>
<td>1’-1’30”</td>
<td>A</td>
<td>4</td>
<td>90%</td>
</tr>
<tr>
<td>Lying face, trunk extension</td>
<td>1’30”-2’</td>
<td>A</td>
<td>4</td>
<td>90%</td>
</tr>
<tr>
<td>Lying back, pushing for the press thigh</td>
<td>1’-1’30”</td>
<td>A</td>
<td>4</td>
<td>95%</td>
</tr>
<tr>
<td>And down the wave</td>
<td>35-40</td>
<td>A</td>
<td>4</td>
<td>90%</td>
</tr>
<tr>
<td>Sitting back on a fixed scale, a sponge roller arms grasping a step in the hands, running squats with leg work imitation butterfly</td>
<td>1’-1’30”</td>
<td>A</td>
<td>4</td>
<td>90%</td>
</tr>
<tr>
<td>Work of the extensor arms butterfly</td>
<td>30”-1’</td>
<td>A</td>
<td>4</td>
<td>90%</td>
</tr>
<tr>
<td>Push up clap</td>
<td>35-40</td>
<td>A</td>
<td>4</td>
<td>90%</td>
</tr>
<tr>
<td>Working butterfly legs with feet above the gym mat</td>
<td>1’30”-2’</td>
<td>A</td>
<td>4</td>
<td>95%</td>
</tr>
</tbody>
</table>
Marathon

### Table 2: Final testing

<table>
<thead>
<tr>
<th>Samples</th>
<th>Groups</th>
<th>Mean</th>
<th>S D</th>
<th>Deviation</th>
<th>Ampl.</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active time</td>
<td>Control</td>
<td>1300.92</td>
<td>36.42</td>
<td>29.25</td>
<td>110.00</td>
<td>2.80</td>
</tr>
<tr>
<td></td>
<td>Experiment</td>
<td>1211.08</td>
<td>55.84</td>
<td>38.44</td>
<td>205.00</td>
<td>4.61</td>
</tr>
<tr>
<td>Passive time</td>
<td>Control</td>
<td>1302.33</td>
<td>7.91</td>
<td>6.61</td>
<td>23.00</td>
<td>0.61</td>
</tr>
<tr>
<td></td>
<td>Experiment</td>
<td>1211.08</td>
<td>55.84</td>
<td>38.44</td>
<td>205.00</td>
<td>4.61</td>
</tr>
<tr>
<td>Power</td>
<td>Control</td>
<td>100.67</td>
<td>3.47</td>
<td>2.83</td>
<td>11.00</td>
<td>3.45</td>
</tr>
<tr>
<td></td>
<td>Experiment</td>
<td>119.25</td>
<td>5.50</td>
<td>3.92</td>
<td>21.00</td>
<td>4.61</td>
</tr>
<tr>
<td>Total mechanic</td>
<td>Control</td>
<td>7.20</td>
<td>0.07</td>
<td>0.05</td>
<td>0.22</td>
<td>0.92</td>
</tr>
<tr>
<td>Notes obtained</td>
<td>Control</td>
<td>8.60</td>
<td>0.11</td>
<td>0.08</td>
<td>0.42</td>
<td>1.29</td>
</tr>
<tr>
<td></td>
<td>Experiment</td>
<td>9.60</td>
<td>0.04</td>
<td>0.03</td>
<td>0.15</td>
<td>0.40</td>
</tr>
<tr>
<td>100m butterfly</td>
<td>Control</td>
<td>1.04</td>
<td>00:01</td>
<td>00:01</td>
<td>00:05</td>
<td>2.05</td>
</tr>
<tr>
<td></td>
<td>Experiment</td>
<td>1.01</td>
<td>00:01</td>
<td>00:01</td>
<td>00:03</td>
<td>1.54</td>
</tr>
<tr>
<td>200m butterfly</td>
<td>Control</td>
<td>2.17</td>
<td>00:02</td>
<td>00:02</td>
<td>00:06</td>
<td>1.12</td>
</tr>
<tr>
<td></td>
<td>Experiment</td>
<td>2.13</td>
<td>00:02</td>
<td>00:02</td>
<td>00:07</td>
<td>1.69</td>
</tr>
</tbody>
</table>

The entire study demonstrated certain progress of the experiment group in front of the control group due to the independent variable of our research. The increase in performance from the application variability is observed independent research and testing simulator Ergos condition, it offers test conditions close to nature effort provided by swimmers in the water. Thus the active length test group experience a significant increase in the length of actual rowing compared with the control group.

The marks obtained by the two groups simulator testing conditions Ergos are in favor of experiment, demonstrating a higher efficiency strokes this group. The work calculated for both groups is higher at both test experiment belonging to the group and the final term.

The results obtained during the research to develop indices of physical training on land preparation have demonstrated the effectiveness of experiment group.

At 200m butterfly test data revealed different evolution of the two groups of swimmers.
Conclusions

The independent variable of the study contains an optimal relationship between increased stress and increased opportunities to cope effort use so the dosage is carefully performed, taking into account the age, level of development of skeletal and muscular system and the level of swimmers preparedness.

The independent variable used by us based on rationalization, prioritization and optimization objective means of training can land the physical training of swimmers. Analysis of these data can extrapolate future courses of action in preparation coaches swimming.

The level of development of physical training on group land experiment with competitive transfer samples, objectified by the results recorded in the three tests confirm the correctness of the design and methodology of ongoing development and evaluation study.

Recommendations

The training should be regarded as a development phenomenon and special training of swimmers in terms of improving physical sports to achieve maximum performance capacity.

REFERENCES