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STUDYING THE TESTING INDICATORS OF 5-6 YEAR-OLD GIRLS IN THE TRAINING PROGRAM OF RECREATIONAL AND THERAPEUTIC SWIMMING

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Abstract. In this article the authors present the results from the study conducted on the observation of training 5-6 year-old girls in recreational-therapeutic swimming. Study objective determination of comparable results on the recreational-therapeutic swimming in 5-6-year-old girls. Methods and materials included four tests - Four available simultaneous continuous loads for 48 ± 3 (first testing) and 96 ± 2 (second testing) in recreational and therapeutic swimming. (LOTUS WATER ENERGY Web site [Internet]. Chisinau (MD): LOTUS WATER ENERGY SRL; [cited 2019 Jan] Available from: <http://www.lotuslife.md/>. We tested 21 girls, aged 5-6 year-old, which belonged to the main group and were engaged in the second program, 45 minutes, lessons per week. The testing took place on 01.12.2018 and 02.05.2019. The results of the study allowed to conceptualize the curriculum of training and the didactic content of swimming lessons for 5-6 year-old girls, according to which we managed to form certain swimming competences and qualities. A comparative analysis of the conjugate selection of indicators revealed that the results in the second test were higher for an arbitrary breath-hold ($t = 5,088$ with $P < 0,001$), swimming 7 meters on the chest, leg crawl, hands on a noodle, arbitrary breathing ($t = 1,004$ with $P > 0,05$), in swimming 7 meters under water, breaststroke, leg crawl, arbitrary breathing ($t = 3,73$ with $P < 0,001$), in swimming 7 meters on the back, hands behind the head on a noodle ($t = 5,21$ at $P < 0,001$). The results obtained determined the following conclusions: the content and duration of the training system in the study can perform the functions of individual initial training in recreational and therapeutic swimming for 5-6 year-old girls; to achieve significant results in recreational and therapeutic swimming for 5-6 year-old girls, 48 ± 3 individual lessons are needed, and for reliable results that conclude a formative effect, 96 ± 2 lessons in the second system, 45 minute, lessons per week are sufficient.

Keywords: children, swimming, testing.

Introduction. The main tasks of swimming for children are: rehabilitation, support of physical development, improvement of basic vital motor skills, development of a sufficient measure of the ability to act with various objects, the formation and development of swimming skills and independent motor activity skills, which determine the perspective of all life activity. That is, swimming lessons are especially important in the psychomotor development of the child. But a number of

issues still remain that are associated with the proper selection of the quality and the level of physical activity, which implies sufficient amount and long-term achievements in all of the above tasks.

We have gained certain knowledge in the process of conducting many years of theoretical and methodological work in the field of children's swimming and practical work in the system of recreational and therapeutic swimming for children, which we bring to your attention. In this paper, pilot

results are published that demonstrate the degree of formation and development of swimming skills.

The purpose of the study is a comparative analysis of a conjugate sample of test results of 5-year-old girls in the system of training in recreational-therapeutic swimming.

Methods and materials. The study was conducted from June 1, 2018 to June 2, 2019. To achieve the goal of the study, we used four tests consisting of available instantaneous continuous loads at 48 ± 3 (first test) and 96 ± 2 (second test) in classes in the system of training in recreational and therapeutic swimming (LOTUS WATER ENERGY Web site [Internet]. Chisinau (MD): LOTUS WATER ENERGY SRL; [cited 2019 Jan] Available from: <http://www.lotuslife.md/> [14]. Test data were selected in the process of current control [12] of the swimming training of girls for reasons of access in terms of the level of training, technical conditions and cognitive awareness, also because they reflect the properties of the studied parameters and correspond to the psycho-physiological characteristics of the motor activity of preschool children [1, 2, 4, 5, 6, 9]. These are the following tests:

1. Arbitrary hold of breath underwater in place, standing on his feet, hands on the noodle, measurement units - seconds.
2. Swimming 7 meters on the chest, leg crawl, hands on the noodle, arbitrary breathing, measurement units - seconds.
3. Swimming 7 meters under water, breaststroke arms, leg crawl, arbitrary breathing, measurement units - seconds.
4. Swimming 7 meters on the back, hands behind the head on the noodle, leg crawl, breathing arbitrary, measurement units - seconds.

We tested 21 girls aged 5-6 years who belonged to the main health group (had no comorbidities) and had an experience of 48 ± 3 lessons (first test) and 96 ± 2 (second test) obtained in lessons. All girls that were part of the main health group and practiced 2 times a

week for 45 minutes. Test conditions: water height in the pool 80 cm, water temperature 34°C , air temperature in the pool 27°C .

Testing took place between 01.12.2018 and 02.05. 2019.

Results. The conducted study on the swimming of children of different ages during 10 years of practical coaching and scientific and methodological research during 2013-2018, allowed us to form a concept of recreational swimming for 4-6 year-old girls, its contents are briefly described the following "Curriculum and competencies in recreational and therapeutical swimming in the training system" in Figures 1 and 2, respectively.

The didactic content of individual lessons was formed in accordance with our own experience, with the recommendations of specialists in the field of motor activity of children [1] and children's swimming [3, 4, 5, 9]. In the system of swimming training for girls, teams, assessments and all standard psychological and pedagogical methods were fully used, which kept these classes adequate to the requirements of recreational and physical fitness and the characteristics for the 5-6 year-old children [6, 7, 8, 10]. When choosing the intensity and volume of the load, we used the methodological principles of "overload and specificity" [13]. The classes had the following specifications:

- they consisted of preparatory, main and final parts;
- the needed emotional support for classes was carried out;
- we used a variety of physical exercises;
- we used interactive additional equipment and educational water games;
- an adequate level of water height and the presence of a spacious body of water.

During 12 months of training, the above contents allowed the girls to form certain qualities, presented in Table 1, which also describe the indicators of the comparative analysis of the conjugate sample of the results of the first and the second testing.

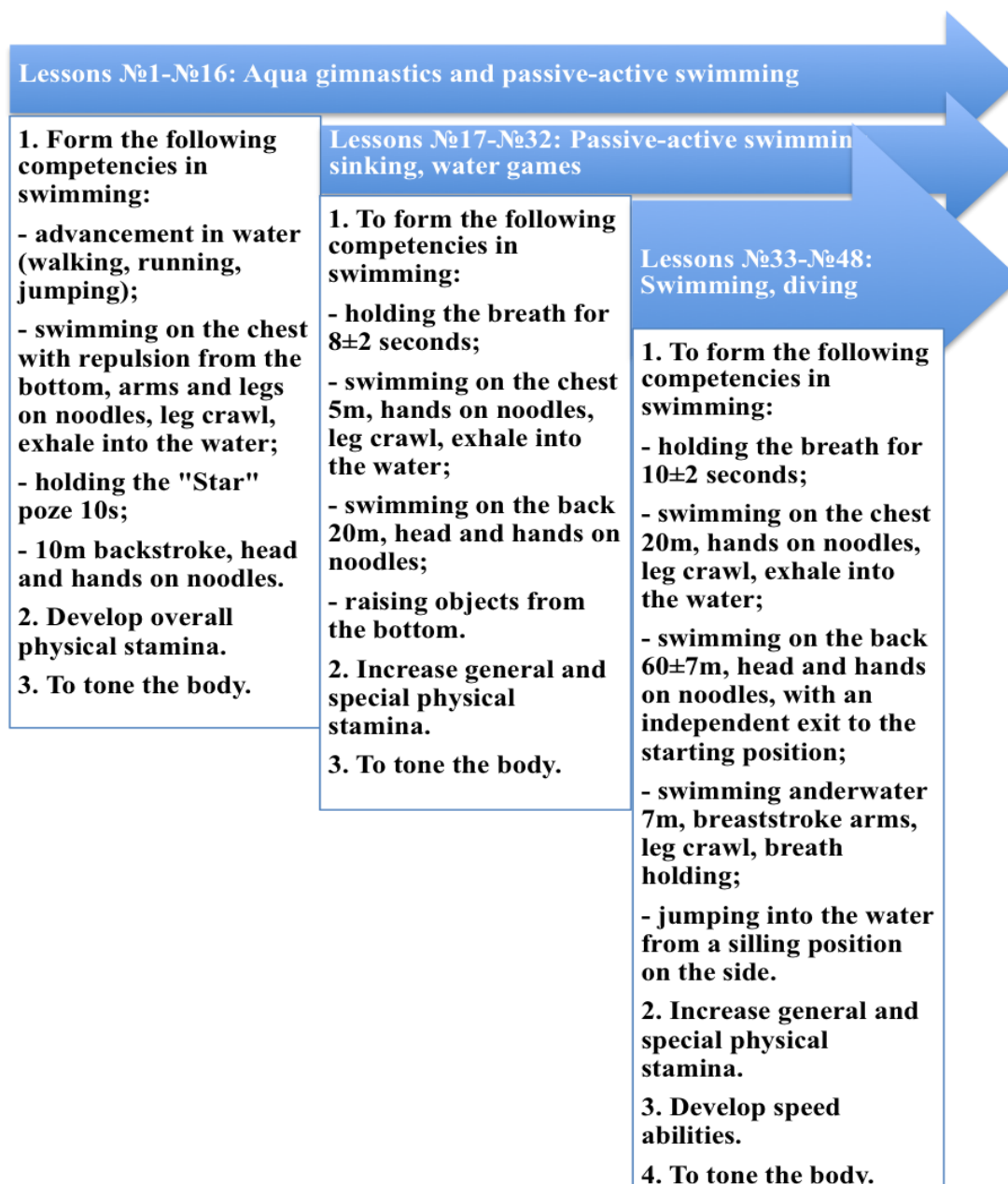


Figure 1. Curriculum and competences in recreational swimming in the system of lessons No. 1 - No. 48

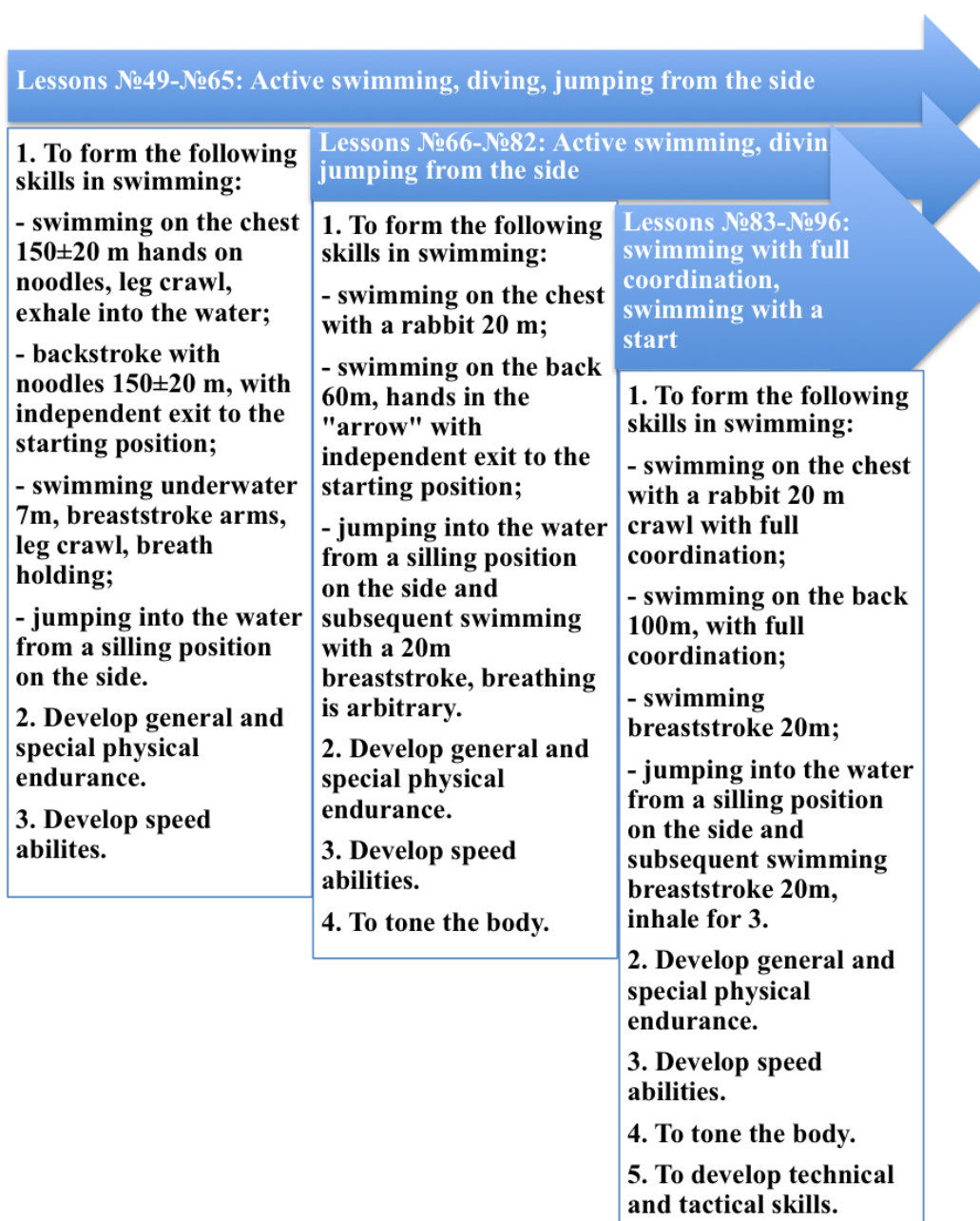


Figure 2. Curriculum and competences in recreational swimming in the system of classes No. 49 - No. 96

Findings:

1. The study showed that the content of the system, which includes 2 classes of 30 minutes for one year, can serve as individual initial training in recreational swimming for girls of preschool age.

2. To achieve significant results in recreational and therapeutic swimming, for 5 year-old girls of, 48 ± 3 individual lessons are enough, and for reliable results that state the forming effect, 96 ± 2 lessons in the system of 2 times per week for 30 minutes are enough.

Table 1. The comparative analysis of a conjugate sample of test results for 5 year-old girls in the recreational swimming training system, n = 21

No	Types of testing	1 test				2 test				t	P
		X min	X max	$\bar{X} \pm m$	$d1$	X min	X max	$\bar{X} \pm m$	$d2$		
1.	Arbitrary hold of breath underwater in place, standing on his feet, hands on the noodle, sec	7,45	20,22	13,35±0,75	3,37	14,54	23,93	17,95±0,55	2,48	5,88	<0,001
2.	Swimming 7 meters on the chest, leg crawl, hands on the noodle, arbitrary breathing, sec	11,74	21,14	16,24±0,55	2,48	9,89	20,75	15,45±0,64	2,87	1,28	<0.05
3.	Swimming 7 meters under water, breaststroke arms, leg crawl, arbitrary breathing, sec	12,81	25,38	17,46±0,74	3,32	11,84	19,35	15,00±0,44	1,98	3,73	<0,001
4.	Swimming 7 meters on the back, hands behind the head on the noodle, leg crawl, breathing arbitrary, sec	19,83	35,73	27,37±0,94	4,20	17,02	30,63	22,59±0,80	3,60	5,21	<0,001

Note:

n = 21

f = 19 r = 0,456

P 0,05 0,01 0,001

t 2,086 2,845 3,850

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