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ADAPTATION OF CHILDREN IN THE SYSTEM OF RECREATIONAL AND HEALTH-IMPROVING SWIMMING

533.04. - physical education, sports, kinetotherapy and recreation

PhD Thesis Abstract
for the purpose of obtaining the degree of Doctor in pedagogical sciences

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Department of Theoretical Foundations of Physical Culture

Recommended composition of the commission for defense:

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The dissertation work and the author's abstract can be found in the library of the SUPES of the Republic of Moldova, as well as on the ANACEC website (www.anacec.md)

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CONTENT

CONCEPTUAL PROVISIONS OF THE RESEARCH

Relevance. The study and analysis of development and adaptation [1, 2, 26] showed that "the enormous evolutionary value of the motor function" [4, 5] is one of the main factors of its processes.

Existing swimming programs contain not only a variety of theoretical and methodological foundations of swimming for children of different ages, but also provide a variety of swimming recommendations for children [6, 7, 8, 27]. These works make it possible to understand children's swimming in general, but do not contain information about the features of the activities carried out within the framework of the programs of modern fitness clubs and swimming pools; do not reveal the features of modern means and methods based on the use of specific modern equipment and the level of development of modern children.

Analysis of current research revealed the following contradictions:

- between the requests from society, the institution of the family for an adequate system of physical education classes and the existing offers of the market of private services and state programs aimed at optimizing the adaptation of children aged 3-4 and 5-6 years;

- between children's needs in a modern and relevant swimming system aimed at developing adaptive abilities and existing animation programs and individual systems of physical culture;

- between the great potential of children's recreational swimming and the lack of methods of using recreational swimming for children aged 3-6 years.

The aim of the study is to optimize the adaptation of children aged 3-6 years in the system of recreational swimming by improving physical development and health, physical fitness, social and emotional development, ability and attitude to learning.

Research hypothesis. Optimization of the adaptation of children aged 3-6 years in the system of recreational swimming can be possible if: the grounds for studying the adaptation of children aged 3-6 years are identified, the concept of recreational swimming is determined, aimed at adaptation and adequate to the age characteristics of the development of children aged 3-4 and 5 -6 years, a complex of diagnostic methods has been formed, aimed at the correct assessment of the dynamics of adaptation of children aged 3-6 years in the system of recreational swimming, methods of teaching children aged 3-6 years in swimming, adequate optimization of adaptation have been developed and pedagogical measures have been implemented in the content of recreational and health improving classes adequate to the systemic characteristics of adaptation of children aged 3-4 and 5-6 years.

Research objectives:

1. Studying the theory, practice and characteristics of adaptation of children aged 3-6 years.

2. Determination of adequate forms, principles, organizational measures, means and methods of the content of recreational swimming lessons, aimed at the adaptation of children aged 3-6 years.

3. Theoretical development and experimental substantiation of recreational swimming training programs for children aged 3-6 years, aimed at adaptation.

4. Revealing the effectiveness of experimental techniques in the systems of individual and group lessons for children aged 3-4 and 5-6 years.

The scientific novelty and originality of the research lies in the theoretical and practical development of methods for conducting individual recreational and health-improving swimming lessons for children aged 3-4, methods for conducting individual recreational-health-improving swimming lessons for children aged 5-6 years and methods for conducting group recreational-health-improving lessons in swimming. swimming for children aged 5-6 years, aimed at optimizing adaptation and developing certain adaptive abilities.

The theoretical significance lies in the fact that:

- the processes of adaptation of children aged 3-6 years were studied and the systemic age characteristics of children aged 3-6 years were identified, which made up the parameters and methods of studying adaptation at 4 levels, including physical development and health, physical fitness, social and emotional development, ability and attitude to training;

- developed three methods of recreational swimming for children aged 3-6 years "One on one", "Water energy" and "Interactive", adequate optimization of adaptation, in which the main pedagogical strategies and standards of teaching swimming for children aged 3-4 and 5 -6 years.

The practical significance lies in the implementation in practice of three author's methods of recreational swimming systems aimed at adapting children aged 3-6 years:

- system of individual lessons for children aged 3-4 years "One on one";
- systems of individual lessons for children aged 5-6 years "Water energy";
- system of group lessons for children aged 5-6 years "Interactive".

Implementation of research results. As a result of the dissertation research, two specialized pools for children, Lotus water energy and Turn off parent, were opened. Also, one method of recreational swimming for children aged 3-4 years "One on one" and two methods for children aged 5-6 years "Water energy" and "Interactive" have been introduced into the practice of children's swimming in the following swimming pools: FOC "Torpedo", Moscow, School No.

11, Chisinau, AVATAR pool, TL Mihai Vityazu, Chisinau, Lotus water energy, Chisinau, Turn off parent, Chisinau.

The structure and scope of the thesis:

The thesis consists of an introduction, three chapters, conclusions, bibliography and annexes, located on 187 pages, the main text of which is located on 155 pages. The work contains 35 tables, 33 figures, 10 appendices and a bibliography, which includes 186 sources in Russian, 7 in Romanian, 19 in English.

Key words: adaptation, recreational swimming, children aged 3-4 and 5-6 years.

FOUNDATIONS FOR STUDY OF ADAPTATION OF CHILDREN AGED 3-6 YEARS IN THE SYSTEM OF RECREATIVE AND HEALTHY SWIMMING

(summary of the first chapter)

The first chapter presents the foundations for studying the adaptation of children in the system of recreational swimming, which were based on a certain understanding of the concept of "adaptation of children aged 3-6 years" [16, 34, 35], National Standards for the education and development of children from birth to 7 years old [29, 30, 40], which are structured by 4 areas of development and phenomenality of recreational swimming in the process of adaptation of children [9, 10, 11, 20, 21, 22, 23, 24, 44, 45]. Therefore, the process of adaptation of children is considered at 4 levels (Figure 1):

- physical development and health;
- physical fitness;
- social and emotional development;
- ability and attitude to learning.

Analysis of the adaptation of children aged 3-6 years for significant characteristics showed that there are systemic features at each level of adaptation of a child from 3 to 6 years old.

At "Level 1: Physical development and health", these features are that the growth and weight indicators for boys and girls within the age periods of 3-4 and 5-6 years do not significantly differ, the heart rate values for boys and girls within the age range periods 3-4 and 5-6 years do not reliably differ, data on VC in children 3-4 are practically absent, there is a final differentiation of the bronchopulmonary system and that there is a tendency to various respiratory diseases [42, 43].

At "Level 2: Physical fitness" these features are that starting from 4 years old the possibility of purposeful formation of movements in the process of teaching a child is revealed,

from 4 to 6 years old the number of exercises necessary for the formation of a new motor action decreases [17, 18, 26, 32, 33, 36, 37, 38].

At "Level 3: Social and emotional development", these features consist in the fact that there is a growth spurt in the development of memory and visual-figurative thinking, the indicators of the development of the motivational-need sphere at 3-4 years old differ in comparison with the indicators of children 5-6 years old , the characteristics of communication at 3-4 years old are different compared to the characteristics of communication at 5-6 years old and therefore has two forms for 3-6 years, self-awareness and self-esteem is formed in two stages: from 3 to 4 years old and from 5 to 7 years old, the characteristics of the main activity differ in 3-4 years and 5-6 years and are defined as a plot-role-playing game with an external orientation and a plot-role-playing game with a personal orientation [12, 13, 14, 39].

At "Level 4: Ability and attitude to learning", the peculiarity lies in the fact that in order to foster a positive and effective ability and attitude to learning in children of 3-6 years old, it is important in the learning process to determine and reach the zone of proximal development, which are different in 3- 4 years old compared to children aged 5-6 [29, 30, 40].

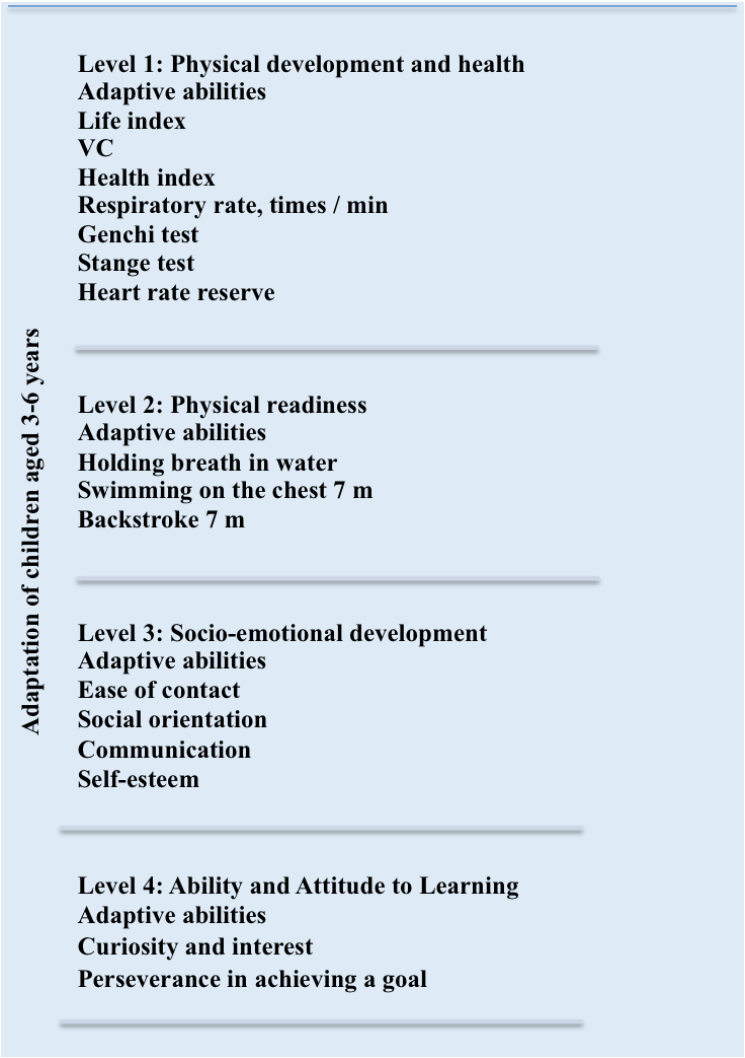

Figure 1. The content of the concept "Adaptation of children aged 3-6 years".

Taking into account the above-mentioned systemic age characteristics of adaptation, we decided to divide all children who took part in the experiment into 2 age groups: 3-4 years old and 5-6 years old.

Further analysis of the available classical and modern information sources for the adequacy of the existing methods and programs in the field of children's physical culture [6, 7, 8, 27] for adaptation, showed that swimming is the most specific requirements for physical development, health and physical fitness.

In addition, the analysis revealed that in the system of physical culture there is a pedagogical system for children 3-6 years old, which meets all systemic age characteristics and contains opportunities for optimization of adaptation - this is recreational physical culture or physical recreation [31].

DIAGNOSTICS OF THE DYNAMICS OF ADAPTATION OF CHILDREN 3-6 YEARS OLD IN THE SYSTEM OF RECREATIVE AND HEALTHY SWIMMING

(summary of the second chapter)

Research methods. In addition to theoretical scientific methods, the research algorithm also used empirical methods based on the expediency of experimental studies in the field of physical culture [3, 15, 25 and directly in the field of studying children's motor activity in the area of swimming [19].

These are the following methods:

• coverage of various aspects of physical culture for children, identification of existing classical and modern methods of children's swimming, study and analysis of scientific literature for the presence of age-related characteristics of the development and adaptation of children, which form the content of individual research methods and determine various author's methods aimed at the adaptation of children aged 3- 6;

• pedagogical observations, which were carried out for children aged 3-6 years in the process of individual and group lessons, as well as during the control starts "FANNI FISH", including, inter alia, photography and video filming;

• survey methods (written questionnaire), conducted at the first, second and fourth stages of the experiment, where the respondents were the parents of the children involved;

• control tests, including functional tests and four simultaneous continuous swimming loads, designed to study certain indicators of physical development, health and physical fitness, which show the quality of adaptation, as well as heart rate monitoring and timing, which determined the compliance of physical load during training with the proper norms;

• indices characterizing the development of some indicators of physical development and health;

• psychodiagnostic techniques aimed at studying indicators of social and emotional development and learning ability;

• ascertaining experiment in the developed system of individual recreational and health-improving classes "One on one" for children aged 3-4 years;

• forming experiments in the developed system of individual recreational and health-improving classes "Water energy" for children 3-4 years old and in the developed system of group recreational-health improving classes "Interactive" for children 5-6 years old;

• mathematical and statistical methods, including: first, a comparative analysis of adaptation indicators in a coupled sample of children aged 3-4 years in the “One on one” individual training system; secondly, a comparative analysis of adaptation indices in an independent sample of children aged 5-6 years in the systems of individual swimming lessons "Water energy" and group lessons - "Interactive".

The choice and specification of research methods and experimental teaching methods were formed depending on the factors [4, 6, 8, 17, 27, 29, 30, 40, 41], including systemic age characteristics and technical conditions of the pool in which the experimental activity.

In total, the study used 3 surveys, 11 tests, 6 indices and 6 methods, thanks to which we received results on 24 adaptation indicators characterizing the adaptation of children aged 3-6 years, of which 17 indicators are basic, and 7 are auxiliary.

Organization of the study. The study was carried out as part of a complex experiment in the period 2015-2020 in 6 stages, since the effectiveness of three different training methods was studied and significant factors were identified that determine various experimental teaching methods for children aged 3-4 and 5-6 years.

A survey "Health Index" was conducted and a whole range of research activities was carried out, which included measurements, tests and psychodiagnostic techniques that constituted the initial ("pre-experimental")

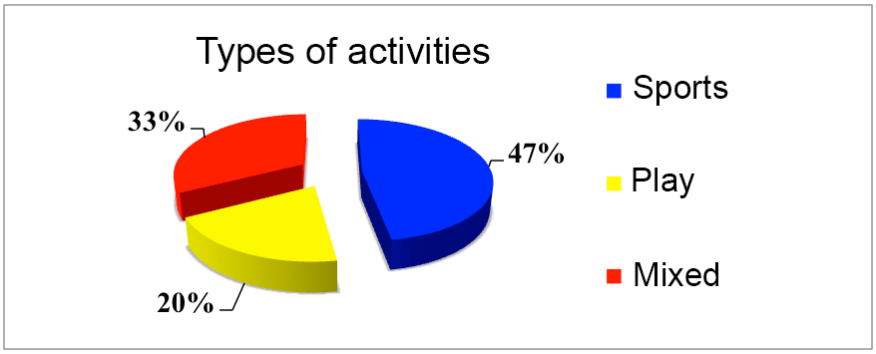

Figure 2. Results of the survey "I love swimming"

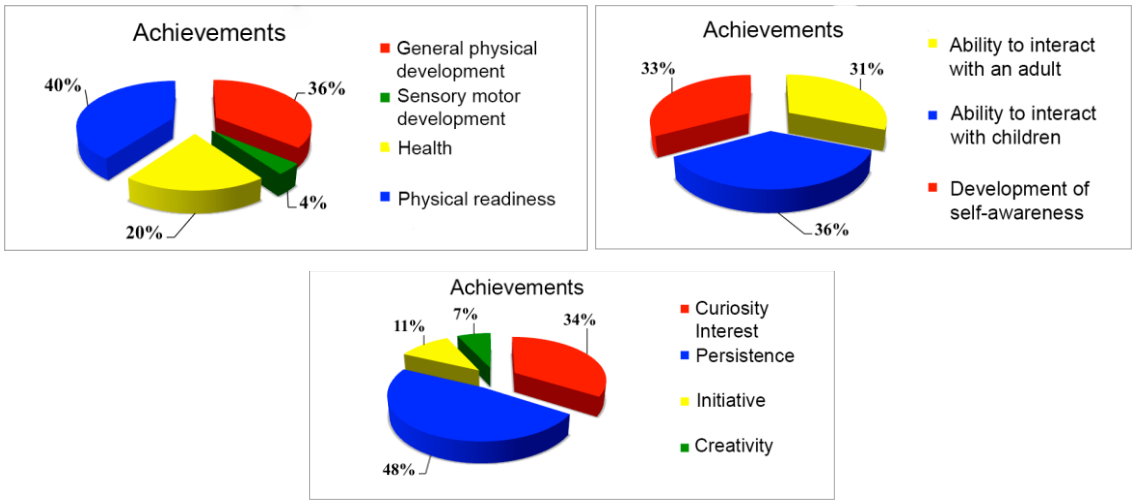

Figure 3. Distribution of expected achievements of parents from their children aged 3-6 years

Analysis of the results of this survey allows us to conclude that among the many achievements of a child, parents prefer physical fitness (40% of respondents), among the achievements of the level of social and emotional development - the ability to interact with children (36% of respondents), at the level of ability and attitude to learning - curiosity (66% of respondents).

Before starting the introduction of the experimental swimming teaching methods developed by us in all three groups, we carried out many tests and measurements, which received the status of initial ones and are presented below in Table 1, Table 2 and Table 3.

Initial testing and psychodiagnostics of children aged 3-4 years demonstrates a certain level of development of the qualities of adaptation, and a comparative analysis of the results in terms of the adaptation indicator at the first level "Physical development and health" - VC in comparison with the calculated PVC (Table 2), demonstrates its insignificant excess, with VC = 0.87 compared to calculated PVC = 0.73 - 0.84.

Initial testing and psychodiagnostics of children aged 5-6 years demonstrates a certain level of development of adaptation qualities and states the homogeneity of properties in the systems of individual and group swimming training.

Having received the initial results of the main and auxiliary indicators of adaptation of children aged 3-6 years, we carried out their correlation analysis, as a result of which we received the results on 105 correlations of the levels of physical development, health and physical fitness and 15 on the levels of social-emotional development and ability and attitudes to learning, a total of 120 correlations, of which 38 and 6, respectively, found a positive relationship at r = 0.50 - 0.99.

Table 1. Initial results of adaptation indicators for children aged 3-4 years in the system of individual lessons, n = 37

№ i/i	Types of testing	Initial indicators $\bar{x}_1 \pm m$
	Level 1: Physical development and health	
1.	Life index, b	10.38±0.19
2.	VC, l	0.87±0.02
3.	Health index, b	4.20±0.23
4.	Respiratory rate, times / min	29.32±0.31
5.	Genchi test, s	5.56±0.75
6.	Stange test, s	8.80±0.16
7.	Heart rate reserve, b	116.37±0.66
	Level 2: Physical readiness	
1.	Holding breath in water, s	11.70±0.58
2.	Swimming on the chest 7 m, s	16.31±0.30
3.	Swimming underwater 7 m, s	17.16±0.37
4.	Backstroke 7 m, s	29.83±1.08
	Level 3: Socio-emotional development	
1.	Ease of contact, b	1.77±0.11
2.	Social orientation, b	4.15±0.23
3.	Communication, b	3.83±0.23
4.	Self-esteem, b	1.85±0.11
	Level 4: Ability and Attitude to Learning	
1.	Curiosity, b	5.17±0.31
2.	Perseverance, b	3.17±0.15

Note:	n = 37;	P - 0.05	0.01	0.001
	f – 36	t - 2.028	2.719	3.582
	r = 0.519			

Table 2. Indicators of the initial calculated indicators of PVC for children aged 3-6 years

Indicators of the calculated PVC, l	Age, years		
	3-4 System of individual lessons	5-6 System of individual lessons	5-6 System of group lessons
	0.73 – 0.84	1,01 – 1,16	0,95 – 1,09

Among the adaptation indicators at the levels of physical development, health and physical fitness, the indicators of height, weight, IZ, VC, Stange's test and Genchi's test have a great influence, more than 5 connections, with r = 0.51 - 0.83. The large interconnection of these indicators indicates a complex and correct choice of tests for studying indicators of physical development, health and physical fitness in adaptation due to their specificity for swimming and the great potential of swimming to increase the effectiveness of adaptation in children according to these indicators, by influencing their development.

Table 3. Initial results of adaptation indicators of children aged 5-6 years in the system of individual (1) and group (2) lessons (n_1=28; n_2=28)

№ i/i	Types of testing	Initial Indicators $\bar{x}_1 \pm m$	Initial indicators $\bar{x}_2 \pm m$	t_1	P_1
	Level 1: Physical development and health				
1.	Life index, b	8.84±0.20	7.98±0.40	1.95	>0,05
2.	VC, l	0.94±0.01	0.92±0.01	2.00	>0,05
3.	Health index, b	6.34±0.32	5.87±0.28	1.11	>0,05
4.	Respiratory rate, times / min	27.15±0.37	26.70±037	0.90	>0,05
5.	Genchi test, s	10.15±0.15	10.34±0.07	1.35	>0,05
6.	Stange test, s	11.67±0.26	12.03±0.27	1.00	>0,05
7.	Heart rate reserve, b	116.30±0.75	117.45±1.07	0.88	>0,05
	Level 2: Physical readiness				
1.	Holding breath in water, s	14.35±0.59	11.97±0.98	2.08	>0,01
2.	Swimming on the chest 7 m, s	17.24±0.44	18.83±0.46	2.52	>0,01
3.	Swimming underwater 7 m, s	16.56±0.58	19.12±0.78	2.66	>0,01
4.	Backstroke 7 m, s	26.37±0.74	29.03±0.82	2.41	>0,01
	Level 3: Socio-emotional development				
1.	Ease of contact, b	3.07±0.14	2.81±0.14	1.85	>0,05
2.	Social orientation, b	2.30±0.37	1,.0±0.23	1.42	>0,05
3.	Communication, b	6070±1.97	6.,40±1.64	1.05	>0,05
4.	Self-esteem, b	1.54±0.23	1.39±0.19	0.53	>0,05
	Level 4: Ability and Attitude to Learning				
1.	Curiosity, b	5.67±0.8	5.18±0.28	1.28	>0,05
2.	Perseverance, b	3.15±0.8	3.56±0.23	1.17	>0,05

Note:	n_1=28; n_2=28; f=27	P -	0.05	0.01	0.001
		t -	2.056	2.779	3.707

The revealed high correlation between the indicators of resting heart rate and heart rate, at r = 0.99, is associated with the fact that the resting heart rate result is used in the index formula.

Having received the initial results of adaptation of children aged 3-6 years, we began to apply three developed experimental methods of teaching swimming “One on one”, “Water energy” and “Interactive”.

CONCEPT AND EFFICIENCY OF RECREATIVE AND HEALTHY SWIMMING FOR CHILDREN AGED 3-6 YEARS

(Summary of the third chapter)

The content of the developed methods of recreational swimming for children aged 3-4 and 5-6 years has general basic strategies, which include development standards, training principles, stages of training, means and methods.

At the same time, the goals, objectives and specific content of the means and methods, as well as the choice and structuring of the load of classes in each of the 3 systems are different and included special modifications of means, loads and methods.

If the goal of the study is to optimize the adaptation of children aged 3-6 years in the system of recreational swimming by improving physical development and health, physical fitness, social and emotional development and learning ability, then adequate swimming programs should include content aimed at developing these qualities with appropriate specific or "swimming" goal-setting.

That is, the goal of recreational swimming for children aged 3-4 years is teaching swimming in incomplete coordination through special physical and socio-psychological training.

The purpose of recreational swimming for children aged 5-6 years is to teach complex swimming in full coordination through special physical and socio-psychological training.

Special physical training is aimed at optimizing and dynamizing physical development, health and physical fitness with the help of specific swimming means.

Socio-psychological training is aimed at developing the child's social and personal skills and abilities with the help of socio-psychological support for swimming lessons.

The main content of the classes is formed within the framework of the Standards for recreational and health-improving swimming (SRHS), developed by us on the basis of the State Standards for the education and development of a child from 0 to 7 years old [29, 30, 40]. This didactic content includes special physical training aimed at improving not only the qualities of physical fitness, such as specific or swimming skills and abilities presented in the second level of adaptation, but also physical development and health.

Features of the concept of recreational swimming in comparison with the recommendations of well-known authors of children's swimming programs [6, 7, 27], include organizational and methodological features that allow you to maintain the adequacy of recreational swimming for the adaptation of children 3-6 years old and accelerate learning to swim.

Organizational features:

1. The time share of games in individual lessons for 3-4 years is insignificant, in individual and group lessons for 5-6 years - only at the end of the lesson.

2. All games with a story about "sports", in other words, only sports games are used.

3. The formation of the skill of independent swimming in "complete coordination" begins in children from the age of 3.

4. Training in swimming in sports ways occurs from the age of 4.

5. Water temperature during classes for all ages 34 ° C.

6. The height of the water at the initial stage for children aged 3-6 years is 0.8 m.

7. All stages of education for children 3-4 years old are conducted in an individual mode of study.

8. All stages of education for children 5-6 years old are conducted both individually and in group lessons.

9. The time for an individual lesson for children aged 3-4 and 5-6 years is 30 minutes, for a group lesson for children aged 5-6 years - 45 minutes.

10. Warm-up includes two components of activity: specific and non-specific.

11. The presence of the instructor in the water at all stages of training is mandatory.

Methodological features:

12. At the preparatory stage of training, first of all, exercises are used to teach the technique of performing crawl work with crawl and at the same time breathing exercises, then exercises for mastering the technique of working with the arms and legs, and at the same time learning to swim on the back.

13. Due to the fact that children during the lesson are in conditions of water temperature with t = 34 ° C, a short warm-up is used, which lasts up to 5 minutes.

14. All exercises are learned in water while standing still or with advance and slide.

15. Warm-up on land is not used.

16. Long pole, rubber rings and armbands are not used.

17. Start training begins at the age of 3 at the stage of basic training.

18. The individual characteristics of the trainees are taken into account, for example, the preparatory stage of individual lessons for both 3-4 and 5-6 years old, the child can only perform exercises on the surface of the water or only in the water (in diving).

19. Training and in-depth study of the work of the hands in sports swimming styles occurs with the use of hypertrophied movements, for example, the instructor requires “straight and long” when lifting the hands out of the water.

20. As specific methods of training, methods of strictly regulated exercise are used, including repeated, uniform, extensive-interval, circular according to the method of long-term continuous exercise, as well as play and competition.

21. Dismembered is mainly used as a teaching method.

Load features:

22. Dosing load - progressive.

23. Aerobic type of exercise was used, since children have a deficit in anaerobic capacity due to less muscle mass, lower glycolytic capacity and insufficient neuromuscular coordination.

24. In terms of intensity, the load is mainly moderate and submaximal, since children have a low perception of the test effort and a low systolic volume.

25. Use with caution the emotional support of classes, as it increases the heart rate to 20-40 beats · min-1, according to O. Bar-Or, T. Rowland [4, p. 21].

26. Special attention to obese children, due to a higher submaximal heart rate than lean children, according to O. Bar-Or, T. Rowland [4, p. 21].

27. Rest is subcompensatory and compensatory, since the recovery of children occurs quickly after moderate and submaximal loads, which may be due to a higher parasympathetic tone, according to O. Bar-Or, T. Rowland [4, p. 21].

The structure of teaching swimming skills and abilities in the system of recreational swimming is that first there is training in coordinated breathing, then the crawl work, hand work with breaststroke, leg work with breaststroke and in parallel with all training - swimming on the back and jumping or starting. In contrast to the existing techniques that recommend at the first stage learning the movements of the legs, at the second - learning hand movements, at the third - learning the way of swimming with full coordination and at the fourth - improving swimming with complete coordination of movements.

Features of recreational swimming for children 3-4 years old in the system of individual lessons "One on one" are that the stages of preparation contain two stages, a preparatory stage (16 lessons of 30 minutes each: passive-active swimming and games on the water) and stage of basic training (80 lessons of 30 minutes each: active and independent swimming); exercises have various modifications and are performed in various supports; the intensity of the load is within 34.3-57.1% (of the maximum heart rate), with a heart rate of 72-120 beats · min-1; motor density 81% -84%; socio-psychological methods include a certain content; the structure of swimming training includes a certain number of lessons.

Features of recreational swimming for children 5-6 years old in the system of individual lessons "Water energy" are that there are 2 stages of training, a preparatory stage (2 lessons of 30 minutes each: aqua gymnastics and games on water) and a stage of basic training (94 lessons of 30 minutes each: active, independent, coordinated and complex swimming); the exercises have various modifications and are performed in the following supports, in throws and in pressing under water; the intensity of the load is moderate and rarely submaximal (only at the peak of the load) and is in the range of 34.3-65.7%, with a heart rate of 74-138 beats · min-1; the motor density of the 96th individual lesson "Water energy" is within 82.9%; socio-psychological methods include a certain content; the structure of swimming training includes a certain number of lessons.

Features of recreational swimming for children 5-6 years old in the system of group lessons "Interactive" are that there are 2 stages of training, a preparatory stage (4 lessons of 45 minutes: integration and basic exercises in water in a group) and a stage of basic training (92 lessons of 45 minutes: independent, coordinated and complex swimming); the exercises were performed in certain modifications; the intensity of the load of the training lesson is low and moderate, 39-54.3%, with a working heart rate of 82-114 beats / min, and the developmental one is moderate and submaximal, 41.9-85.7%, with a heart rate of 90-180 bpm -1; motor density of training and developmental classes "Interactive", which is equal to 72.36% and 75.87%, respectively; specific and socio-psychological methods had a certain content; the structure of swimming training includes a certain number of lessons.

The content of the system of lessons for children 3-4 years old “One on one”, developed by us, made it possible to obtain certain results in optimizing adaptation. In order to objectively assess the dynamics of the results of adaptation indicators for children 3-4 years old, we need the final results of anthropometry, which will allow us to calculate the proper values of certain adaptation indicators. Therefore, we present them in Table 4.

Table 4. The final results of anthropometric measurements of children aged 3-4 years, n = 37

№ i/i	Types of testing	Final indicators $\bar{X}_2$
1.	Height, cm	103.6±3.65
2.	Weight, kg	16.20±2.55
3.	Resting heart rate, beats / min	84.86±1.52

Table 5. Mathematical and statistical analysis of the initial and final results of adaptation indicators for children aged 3-4 years at the level of "Physical development and health", n = 37

№ i/i	Types of testing	Initial Indicators $\bar{x}_1 \pm m$	Final indicators $\bar{x}_2 \pm m$	t	P
	Level 1: Physical development and health				
1.	Life index, b	8.95±0.19	10.61±0.18	8.3	<0,001
2.	VC, l	0.87±0.02	1.10±0.01	7.60	<0,001
3.	Health index, b	4.20±0.23	5.30±0.23	3.43	<0,01
4.	Respiratory rate, times / min	29.32±0.31	28.57±0.27	2.67	<0,05
5.	Genchi test, s	556±0.75	9,.27±0.93	4.46	<0,001
6.	Stange test, s	8.80±0.16	10.09±0.33	4.96	<0,001
7.	Heart rate reserve, b	116.37±0.66	120.69±062	6.96	<0,001

Note:	n = 37	P -	0. 05	0.01	0.001
	f – 36	t -	2.028	2.719	3.582
	r=0.519				

Mathematical and statistical analysis showed that in the group of 3-4 years, which was engaged in the system of 2 individual lessons per week for 30 minutes "One on one", the results

obtained at the beginning of the experiment in comparison with the final ones are significantly higher in all adaptation indicators for level 1. "Physical development and health": Life index, at P <0.001; VC, at P <0.001; Health index, at P <0.01; Respiratory rate, at P <0.05; Genchi test, at P <0.001; Stange's test, at P <0.001; Heart rate reserve, at P <0.001.

Among the indicators of level 1. "Physical development and health", our special attention was to the indicators of VC, which are absent for this age.

Comparative analysis of the final results in terms of VC with the calculated VC shows that it corresponds to the highest values of the norm and is within the required values (Table 6.).

Table 6. The final result of the calculated indicator PVC for children aged 3-4 years

Indicators of the calculated PVC, l	Age, years
	3-4
	System of individual lessons
	0,97 – 1,13

Mathematical and statistical analysis of the adaptation of children aged 3-4 years at the 2nd level "Physical fitness" (Table 7) showed that the results obtained at the beginning of the experiment, compared with the final ones, are significantly higher for all tests: <0.001; Swimming on the chest 7 m, with P <0.05; Swimming underwater 7 m, at P <0.001; Backstroke 7 m, at P <0.001.

Table 7. Mathematical and statistical analysis of the initial and final results of adaptation indicators for children aged 3-4 years at the level of "Physical fitness", n = 37

№ i/i	Types of testing	Initial Indicators $\bar{x}_1 \pm m$	Final indicators $\bar{x}_2 \pm m$	t	P
	Level 2: Physical readiness				
1.	Holding breath in water, s	11.70±0.58	15.12±0.68	5.02	<0,001
2.	Swimming on the chest 7 m, s	16.31±0.30	15.63±0.25	2.26	<0,05
3.	Swimming underwater 7 m, s	17.16±0.37	15.50±0.20	5.09	<0,001
4.	Backstroke 7 m, s	2983±1.08	22.18±0.37	7.88	<0,001

Note: n=37; f – 36 r=0.519 P - 0.05 0.01 0.001; t - 2.028 2.719 3.582

These results became possible due to adequate effective breathing exercises and specific methods of teaching and developing swimming skills and abilities, which included the developed author's content of the “One on one” training system.

The analysis showed that the final results of adaptation at level 3. “Socio-emotional development” (Table 8) are significantly higher than the initial ones according to the following indicators: Social orientation, at P <0.001; Communication, at P <0.001; Self-esteem, at P <0.001. According to the indicator "Ease of contact", the initial and final results did not change significantly (P> 0.05), which was caused by crisis phenomena in the life of children.

Table 8. Mathematical and statistical analysis of the initial and final results of adaptation indicators for children aged 3-4 years at the level of "Social and emotional development", n = 37

№ i/i	Types of testing	Initial Indicators $\bar{x}_1 \pm m$	Final indicators $\bar{x}_2 \pm m$	t	P
	Level 3: Socio-emotional development				
1.	Ease of contact, b	1.77±0.11	2.48±0.03	2.95	>005
2.	Social orientation, b	4.15±0.23	5.25±0.23	5.00	<0.001
3.	Communication, b	3.83±0.23	4.68±0.15	4.25	<0.001
4.	Self-esteem, b	1.85±0.11	2.68±0.15	5.92	<0.001

Note: n=37; f – 36 r=0.519 | P - 0.05 0.01 0.001 | t - 2.028 2.719 3.582

The analysis showed that the results of adaptation at level 3. “Ability and attitude to learning” (Table 9) are significantly higher than the initial ones in one indicator, in terms of persistence, at P <0.001.

The final results in comparison with the initial ones in terms of "Curiosity" do not differ significantly (P> 0.05).

Table 9. Mathematical and statistical analysis of the initial and final results of adaptation indicators for children aged 3-4 years at the level of "Ability and attitude to learning", n = 37

№ i/i	Types of testing	Initial Indicators $\bar{x}_1 \pm m$	Final indicators $\bar{x}_2 \pm m$	t	P
	Level 4: Ability and Attitude to Learning				
1.	Curiosity, b	5.17±0.31	5.48±0.23	1.19	>0,05
2.	Perseverance, b	3.17±0.15	4.19±0.15	2.55	<0,05

Note: n=37; f – 36 r=0.519 | P - 0. 05 0.01 0.001 | t - 2.028 2.719 3.582

The reasons for the negative results of the experiment in the developed system of lessons for children aged 3-4 years "One on one" according to the indicators "Ease of contact" and "Curiosity" can be, firstly, age-related characteristics of the development of children aged 3-4 years, which include crisis phenomena personalities, such as the predominant concentration of the child on himself or the inconclusive formation of the self-concept; secondly, the lack of pedagogical measures in the experiment; thirdly, the lack of awareness of the psychodiagnostic technique used.

There are some more reasons for the indicator "Ease of contact": fourthly, with an insufficient number of trainings, and fifth, with an insufficient amount of time for one lesson.

That is, maybe, if the “One on one” lesson lasted more than 30 minutes and was conducted not two, but three times a week, then the results of the experiment on the indicator “Ease of contact” would be positive, that is, reliably different. However, at the same time, the question remains about the results of the experiment on all other indicators of adaptation: would not an increase in the number and duration of One on one sessions lead to overwork of children and to the fact that they would leave the experiment? Most likely, the answer is: "Yes, it would have happened."

Therefore, the negative results in the experiment in the system of lessons for children aged 3-4 years"One on one" in terms of adaptation indicators "Ease of contact" and "Curiosity" can be considered a compromise in the process of achievement.

Thus, we can say that the final results obtained in the developed author's system of lessons for children aged 3-4 years "One on one", which included 2 individual lessons per week for 30 minutes, speak of the effectiveness of recreational swimming for adaptation, as for 15 indicators out of 17, the results are significantly higher from P <0.05 to P <0.001.

In order to objectively and correctly assess the dynamics of the final results obtained through the use of various author's methods of training "Water energy" and "Interactive", we need anthropometric indicators, which are presented in Table 10.

Table 10. The final results of anthropometric measurements of children 5-6 years old in the system of individual (1) and group (2) lessons, n1 = 28, n2 = 28

№ i/i	Types of testing	Final indicators $\bar{X}_1$	Final indicators $\bar{X}_2$
1.	Height, cm	114.53±3.15	115.19±2.71
2.	Weight, kg	20.15±2.30	19.43±2.94
3.	Resting heart rate, beats / min	80.11±2.31	77.85±2.79

After measuring height, weight and heart rate at rest, we proceeded to a mathematical analysis of the final data on the use of the author's training methods in the “Water energy” and “Interactive” systems.

The final results of adaptation indices in children aged 5-6 years at level 1. "Physical development and health" in the system of group lessons "Interactive" (Table 11) are significantly higher than in the system of individual lessons "Water energy" in the following indices of the vital index, with P <0.05; VC, at P <0.05; Genchi test, at P <0.01; Stange's test, at P <0.001; reserve heart rate, at P <0.05.

Table 11. Mathematical and statistical analysis of the final results of adaptation indicators of children aged 5-6 years in the systems "Water energy"($\bar{x}_1$) and "Interactive"($\bar{x}_2$) at the level of "Physical development and health", n_1=28, n_2=28

№ i/i	Types of testing	Final indicators $\bar{x}_1 \pm m$	Final indicators $\bar{x}_2 \pm m$	t	P
	Level 1: Physical development and health				
1.	Life index, b	15.89±0.12	16.24±0.16	2.06	<0,05
2.	VC, l	1.82±0.01	1.87±0.02	2.50	<0,05
3.	Health index, b	8.87±0.28	8.56±0.23	0.88	>0,05
4.	Respiratory rate, times / min	2.01±0.32	24.54±0.28	1.14	>0,05
5.	Genchi test, s	22.71±0.56	25.20±0.64	2.96	<0,01
6.	Stange test, s	23.36±0.27	25,.40±0.40	4.25	<0,001
7.	Heart rate reserve, b	124.89±.70	127.15±0.65	2.37	<0,05
Note :	n_1=28; n_2=28; f=27	P - 0.05	0.01	0.001	
		t - 2.056	2.779	3.707	

The prevailing development of positive results in the developed system of group lessons for children aged 5-6 years "Interactive" in terms of "Stange test", at P <0.001, is associated with the use of more exercises for holding the breath on inhalation, which were mostly used in the preparatory part “Interactive” sessions and rest breaks.

Among the indicators of the level of "Physical development and health", as well as at the age of 3-4 years, our special attention was to the indicators of VC, due to the exclusiveness of this indicator in the adaptation of the child and the specificity for his development of recreational swimming means. Therefore, we calculated the PVC for children 5-6 years old and present the results of mathematical analysis in Table 12.

Table 12. The final results of the calculated indicators of PVC for children aged 5-6 years

Indicators PVC, l	Age, years and recreational and health-improving swimming system	
	5-6 years in the system of individual lessons "Water energy"	**5-6 years in the system group lessons "Interactive"**
	1.20 – 1.41	1.16 – 1.36

Comparative analysis of indicators of VC and calculated VC in both educational systems for children aged 5-6 years "Water energy" and "Interactive" shows that they are 129% and 137% of the calculated, respectively.

That is, the final results of VC in children studying in the system of group lessons "Interactive" exceed the norms of the calculated VC for the maximum indicator (1.36 l), to a greater extent compared to the results of children who were engaged in the system of individual lessons "Water energy" (according to the maximum indicator PVC= 1.41), with Δ = 0.51

compared to Δ = 0.46. From this data it follows that the experimental method of recreational swimming for children 5-6 years old in the system of group lessons "Interactive" is more effective for the VC indicator than in the system of individual ones - "Water energy".

These results became possible due to more effective breathing exercises and specific methods of teaching and developing swimming skills and abilities, which included the developed author's content of the "Interactive" training system compared to the "Water energy" training system.

The final results of adaptation indicators in children aged 5-6 years at level 2. "Physical fitness" (Table 13) in the system of group lessons "Interactive" is significantly higher than in the system of individual lessons "Water energy" in all indicators: breath holding in water, at P <0.001; swimming on the chest 7 m, with P <0.01; swimming under water 7 m, at P <0.01; backstroke 7 m, with P <0.01.

Table 13. Mathematical and statistical analysis of the final results of adaptation indicators for children aged 5-6 years in the systems "Water energy"($\bar{x}_1$)and "Interactive"($\bar{x}_2$) at the level of "Physical fitness", n_1=28, n_2=28

№ i/i	Types of testing	Final indicators $\bar{x}_1 \pm m$	Final indicators $\bar{x}_2 \pm m$	t	P
	Level 2: Physical readiness				
1.	Holding breath in water, s	16.78±0.25	18.75±0.44	3.94	<0,001
2.	Swimming on the chest 7 m, s	16.87±0.50	14.45±0.50	3.45	<0,01
3.	Swimming underwater 7 m, s	15.25±0.49	13.31±0.35	3.24	<0,01
4.	Backstroke 7 m, s	25.90±0.60	23.29±0.63	3.03	<0,01

Note:	n_1=28; n_2=28; f=27	P -	0.05	0.01	0.001
		t -	2.056	2.779	3.707

W (g) breath holding in water = 26.58%

W (g) swimming 7 m on the chest with a noodle = 17.61%

W (g) swimming 7 m under water breaststroke = 21.76%

W (g) 7m backstroke = 12.40%

W (i) breath holding in water = 20.00%

W (i) swimming 7 m on the chest with a noodle = 10.98%

W (i) swimming 7 m under water breaststroke = 22.48%

W (i) swimming 7m backstroke = 11.39%

That is, the increase in the results of physical training in Interactive is higher compared to Water energy, with Δ = 1.01 - 6.63%, with the exception of the indicator “Backstroke 7 m”, with Δ = -0, 72%. That is, it is easier to teach a child to swim on his back in an individual mode than in a group, since many supports can be used.

The final results of adaptation indices in children 5-6 years old at level 3. "Social and emotional development" (Table 14) in the system of group lessons "Interactive" is significantly higher than in the system of individual lessons "Water energy" in the following indicators: ease of contact, at P <0.05; social orientation, at P <0.05; communication, at P <0.05.

According to the indicator "Self-esteem", the results in the system of group lessons "Interactive" are significantly lower than in the system of individual lessons "Water energy", at P <0.05, which is quite understandable and is due to the fact that during the lessons all the attention of the instructor belongs only to one child, which increases his self-esteem to a greater extent, in contrast to the methods of teaching in a group.

Table 14. Mathematical and statistical analysis of the final results of adaptation indicators for children aged 5-6 years in the systems "Water energy"($\bar{x}_1$) and "Interactive"($\bar{x}_2$) at the level of "Social and emotional development", n_1=28, n_2=28

№ i/i	Types of testing	Final indicators $\bar{x}_1 \pm m$	Final indicators $\bar{x}_2 \pm m$	t	P
	Level 3: Socio-emotional development				
1.	Ease of contact, b	3.61±0.14	3.95±0.09	2.42	<0,05
2.	Social orientation, b	3.10±0.37	4.10±0.28	2.22	<0,05
3.	Communication, b	65.30±2.01	71.15±1.64	2.26	<0,05
4.	Self-esteem, b	4.90±0.23	4.30±0.18	2.14	<0,05

Note: n_1=28; n_2=28; f=27 P - 0.05 0.01 0.001 t - 2.056 2.779 3.707

Next, we turn to a comparative analysis of the final results of adaptation indicators for children aged 5-6 years at the 4th level "Ability and attitude to learning", presented in Table 3.21.

The final results of adaptation indices in children of 5-6 years old at level 4. "Ability and attitude to learning" (Table 15) in the system of group lessons "Interactive" are significantly higher than in the system of individual lessons "Water energy" in terms of curiosity, with P <0.05 and persistence, at P <0.001.

Table 15. Mathematical and statistical analysis of the final results of adaptation indicators for children aged 5-6 years in the systems "Water energy"($\bar{x}_1$) and "Interactive"($\bar{x}_2$) at the level of "Ability and attitude to learning", n_1=28, n_2=28

№ i/i	Types of testing	Final indicators $\bar{x}_1 \pm m$	Final indicators $\bar{x}_2 \pm m$	t	P
	Level 4: Ability and Attitude to Learning				
1.	Curiosity, b	5.70±0.14	6.40±0.23	2.69	<0,05
2.	Perseverance, b	5.10±0.28	6.80±0.28	4.47	<0,001

Note: n_1=28; n_2=28; f=27 P - 0.05 0.01 0.001 t - 2.056 2.779 3.707

Thus, the developed system of recreational swimming for children aged 5-6 years in the system of group lessons "Interactive" is more effective for the development of all indicators of adaptation, and therefore for optimization of adaptation in general, than the developed system of individual lessons "Water energy" in the strength of the significant difference in the final results for 17 indicators of adaptation out of 17.

GENERAL CONCLUSIONS AND RECOMMENDATIONS:

1. The study of the essence of human adaptation has shown that the processes, its components, occur at the social, psychological and physiological levels, and at the age of 3 to 6 years, acquiring certain characteristics, the quality of adaptation, to a greater extent depend on the characteristics of physical development, health, physical preparedness, social and emotional development, ability and attitude to learning.

2. Adequate content of recreational swimming for children from 3-6 years old is aimed at physical development and health, improvement of physical fitness, social and emotional development and dynamization of ability and attitude to learning and depends on factors including systemic age characteristics and technical conditions of education swimming, which form such author's methods of teaching swimming as recreational swimming in the system of individual lessons for children aged 3-4 years "One on one", recreational swimming in the system of individual lessons for children aged 5-6 years "Water energy" and recreational swimming in the system of group lessons for children aged 5-6 years "Interactive".

3. Developed adequate systems of recreational swimming "One on one", "Water energy" and "Interactive", aimed at the adaptation of children aged 3-6 years, include basic strategies that apply to all experimental content of classes and certain methods that are characterized by excellent content modifications, the duration of the training stages, excellent exercise modifications, different load intensities and motor density, excellent content of specific and socio-psychological methods, a certain structure of swimming teaching.

4. The experimental developed system of individual lessons for children aged 3-4 years "One on one" can be considered effective for adaptation, since the final results compared to the initial ones are significantly higher in 15 main indicators of adaptation out of 17, with $P < 0,05$ - $P < 0.001$: in terms of vital index, at $P < 0.001$, VC, at $P < 0.001$, health index, at $P < 0.01$, respiratory rate, at $P < 0.05$, Genchi test, at $P < 0.001$, Shtange's test, at $P < 0.001$, heart rate reserve, at $P < 0.001$, voluntary breath holding, at $P < 0.001$, swimming on the chest 7 m, at $P < 0.05$, swimming underwater 7 m, at $P < 0.001$, backstroke 7 m, with $P < 0.001$, social orientation, with $P < 0.001$, communication, with $P < 0.001$, self-esteem, with $P < 0.001$, perseverance, with $P < 0.001$.

5. The developed system of recreational and health-improving group lessons for children 5-6 "Interactive" is more effective for adaptation than the system of recreational-health-improving individual lessons for children aged 5-6 "Water energy", so the final results are significantly higher in 16 indicators of adaptation out of 17 -i, at $P < 0.05$ - $P < 0.001$: vital index, at $P < 0.05$, VC, at $P < 0.05$, Genchi's test, at $P < 0.01$, Stange's test, at $P < 0.001$, heart rate reserve, at $P < 0.05$, holding the breath in water, at $P < 0.001$, swimming on the chest 7 m, at $P < 0.01$, swimming under water 7 m, at $P < 0.01$, swimming on the back 7 m, at $P < 0.01$, ease of contact, at $P < 0.05$, social orientation, at $P < 0.05$, communication, at $P < 0.05$, curiosity, at $P < 0.05$ and persistence, at $P < 0.001$. According to the indicator "Self-esteem", the final result in the system of group lessons "Interactive" is significantly lower than in the system of individual lessons "Water energy", with $P < 0.05$.

6. The advantage of the methodology of group teaching swimming for children aged 5-6 years "Interactive", in comparison with the methodology of individual teaching "Water energy" is a higher increase in physical fitness in three tests out of 4, with $\Delta = 1.01$ - 6.63 %, except for the result of the indicator "Backstroke 7 m", with $\Delta = -0.72\%$.

The scientific problem solved in the study is to determine the grounds for studying the adaptation of children aged 3-6 years, develop the theoretical and methodological content of the concept of recreational swimming, including three different methods of classes, in the system of which it is possible to optimize the adaptation of children aged 3-6 years and is formed a set of diagnostic techniques, within the framework of which a correct assessment of the dynamics of adaptation of children aged 3-6 years is possible

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1. In order for the content of recreational swimming for children aged 3-6 years to be adequate to optimize adaptation, instructors who practice children's swimming are recommended to maintain its focus on physical development, health, physical fitness, social and emotional development and the ability to learn.

2. Recreational and health-improving swimming for children aged 3-6 years should correspond to significant systemic age characteristics, therefore it includes general basic strategies that make up the developed development standards, methodological principles of classes, stages of training, basic tools, basic methods and features of content that are adequate for children's age of 3-4 and 5-6 years old.

3. To maintain the adequacy of recreational and health-improving swimming for children 3-6 years old, it is necessary to fulfill all 27 features of this swimming, which are developed in this work and allow accelerating learning to swim.

4. As a recreational and health-improving swimming for children aged 3-6 years, it is necessary to use three developed author's systems of lessons, including a system of individual lessons for children aged 3-4 years "One on one", a system of individual lessons for children 5-6 years old "Water energy "And a system of group lessons for children aged 5-6 years "Interactive".

5. The content of recreational and health-improving swimming for children aged 3-4 years “One on one” must be kept within the following requirements: preparatory stage, which is 16 lessons of 30 minutes each and the stage of basic training - 80 lessons of 30 minutes each; exercises have various modifications and are performed in certain supports; the intensity of the load is within 34.3-57.1% (of the maximum heart rate), with a heart rate of 72-120 beats · min-1; motor density 81% -84%; socio-psychological methods include certain content described in paragraph 3.2.

6. The content of recreational and health-improving swimming for children aged 5-6 years "Water energy" must be maintained within the framework of the following requirements: preparatory stage, which is 2 lessons of 30 minutes each and the stage of basic training - 94 lessons of 30 minutes; exercises have various modifications and are performed in certain supports in throws and pressure under water; the intensity of the load is moderate and rarely submaximal (only at the peak of the load) and is in the range of 34.3-65.7%, with a heart rate of 74-138 beats · min-1; the motor density of the 96th individual lesson "Water energy" is within 82.9%; socio-psychological methods include certain content.

7. The content of recreational and health-improving swimming for children aged 5-6 years "Interactive" must be kept within the framework of the following requirements: preparatory stage, which includes 4 lessons of 45 minutes and the stage of basic training - 92 lessons of 45 minutes; exercises have certain modifications; the intensity of the load of the training lesson is low and moderate, 39-54.3%, with a working heart rate of 82-114 beats / min, and the developmental one is moderate and submaximal, 41.9-85.7%, with a heart rate of 90-180 beats per minute -1; motor density of training and developmental classes "Interactive", which is equal to 72.36% and 75.87%, respectively; specific and socio-psychological methods had a certain content.

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АННОТАЦИЯ

Ващенко Марина: «Адаптация детей 3-6 лет в системе рекреативно-оздоровительного плавания», диссертационная работа на соискание учёного звания доктора педагогических наук, специальность 533.04. - физическое воспитание, спорт, кинетотерапия и рекреация.

Структура и объём диссертационной работы:

Диссертация состоит из введения, трёх глав, выводов, библиографии и приложений, расположенных на 179 страницах, основной текст которой расположен на 137 страницах. Работа содержит 35 таблиц, 33 рисунка, 10 приложений и библиографию, которая заключает в себе 186 источника на русском языке, 7 на румынском языке, 19 на английском.

Результаты опубликованы в 28 научных статьях.

Ключевые слова: адаптация, рекреативно-оздоровительное плавание, дети 3-4 и 5-6 лет.

Цель исследования - оптимизация адаптации детей 3-6 лет в системе рекреативно-оздоровительного плавания путём совершенствования физического развития и здоровья, физической подготовленности, социально-эмоционального развития, способности и отношения к обучению.

Задачи исследования:

1. Изучение теории, практики и особенностей адаптации детей 3-6 лет.
2. Определение адекватных форм, принципов, организационных мер, средств и методов содержания занятий по рекреативно-оздоровительному плаванию, направленных на адаптацию детей 3-6 лет.
3. Теоретическая разработка и экспериментальное обоснование программ занятий по рекреативно-оздоровительному плаванию для детей 3-6 лет, направленных на адаптацию.
4. Выявление эффективности экспериментальных методик в системах индивидуальных и групповых занятий для детей 5-6 лет.

Новизна и оригинальность исследования заключается в теоретической и практической разработке 3 методик проведения рекреативно-оздоровительных занятий по плаванию для детей 3-4 и 5-6 лет, направленных на оптимизацию адаптации и развитие определённых адаптационных способностей.

Научная проблема, решённая в исследовании заключается в определении оснований изучения адаптации детей 3-6 лет и теоретико-методического содержания концепции рекреативно-оздоровительного плавания, в системе которого возможна оптимизация адаптации детей в возрасте 3-6 лет и сформирован комплекс диагностических методик, в рамках которого возможна корректная оценка динамики адаптации детей 3-6 лет

Теоретическая значимость заключается в том, что:

- изучены процессы адаптации детей 3-6 лет и выявлены системные возрастные особенности детей 3-6 лет, которые составили параметры и методы изучения адаптации на 4-х уровнях, включающих физическое развитие и здоровье, физическую подготовленность, социально-эмоциональное развитие, способность и отношение к обучению;
- разработаны три методики рекреативно-оздоровительного плавания для детей 3-6 лет «One on one», «Water energy» и «Interactive», адекватные оптимизации адаптации, в которых определены основные педагогические стратегии и стандарты обучения плавания для детей 3-4 и 5-6 лет.

Практическая значимость заключается в осуществлении на практике трёх систем рекреативно-оздоровительного плавания для детей 3-6 лет, направленных на оптимизацию адаптации:

- системы индивидуальных занятий для детей 3-4 лет «One on one»;
- системы индивидуальных занятий для детей 5-6 лет «Water energy»;
- системы групповых занятий для детей 5-6 лет «Interactive»

Внедрение результатов исследования. В результате проведения диссертационного исследования было осуществлено открытие двух специализированных бассейнов для детей Lotus water energy и Turn off parent. Также, внедрены в практику детского плавания одна методика рекреативно-оздоровительного плавания для детей 3-4 лет «One on one» и две методики для детей 5-6 лет «Water energy» и «Interactive» в следующих бассейнах: ФОК «Торпедо», г. Москва, СЮШ №11, г. Кишинёв, бассейн AVATAR, ТЛ Михай Витязу, г. Кишинёв, Lotus water energy, г. Кишинёв, Turn off parent, г. Кишинёв.

ADNOTARE

Vascenko Marina: "Adaptarea copiilor de 3-6 ani în cadrul înotului recreativ și asanativ" teză de de doctor în științe ale educație, specialitatea 533.04. - educație fizică, sport, kinetoterapie și recreere.

Structura și domeniul de aplicare al tezei: Teza constă dintr-o introducere, trei capitole, concluzii, bibliografie și anexe, situate pe 179 de pagini, al căror text principal este de 137 de pagini. Lucrarea conține 35 tabele, 33 figuri, 10 anexe și bibliografia, care include 186 surse în limba rusă, 7 în limba română, 19 în limba engleză.

Rezultatele sunt publicate în 28 articole științifice.

Cuvinte cheie: adaptare, înotului recreativ și asanativ, copii de 3-4 și 5-6 ani.

Scopul studiului este de a optimiza adaptarea copiilor de 3-6 ani în în cadrul înotului recreativ și de asanate prin dezvoltarea abilităților adaptative, inclusiv dezvoltarea fizică și sănătatea, capacitatea fizică, dezvoltarea personală și socio-emoțională, capacitatea de învățare și atitudinea față de învățare.

Obiectivele de cercetare:

1. Studierea teoriei, practicii și caracteristicilor de adaptare a copiilor de 3-6 ani.
2. Determinarea formelor, principiilor, măsurilor organizatorice, mijloacelor și metodelor adecvate ale conținutului orelor de înot recreativ, care vizează adaptarea copiilor de 3-6 ani.
3. Elaborarea teoretică și fundamentarea experimentală a programelor de antrenament de înot recreativ-terapeutic pentru copii 3-6 ani, orientate spre adaptare.
4. Relevarea eficacității tehnicilor experimentale în sistemele de lecții individuale și de grup pentru copii 3-4 și 5-6 ani.

Ipoteza cercetării. Optimizarea adaptării copiilor de 3-6 ani în sistemul de înot recreativ și asanativ poate fi posibilă dacă: sunt dezvăluite temeiurile pentru studierea adaptării copiilor de 3-6 ani. a definit conceptul de înot recreativ, vizând adaptarea și adecvată la caracteristicile de vârstă ale dezvoltării copiilor de 3-4 și 5-6 ani, s-a format un complex de metode de diagnosticare, care vizează evaluarea corectă a dinamicii de adaptare a copiilor de 3-6 ani în sistemul de înot recreativ, au fost elaborate metode de predare al înotului pentru copiii de 3-6 ani, optimizarea adecvată al adaptării și implementarea măsurilor pedagogice în conținutul orelor recreative și de îmbunătățire a sănătății, adecvate caracteristicilor sistemice de adaptare a copiilor de 3-4 și 5-6 ani.

Noutatea științifică și originalitatea cercetării rezidă în elaborarea teoretică și practică a metodicii de desfășurare a lecțiilor individuale de înot recreativ și asanativ și de îmbunătățire a sănătății pentru copiii de 3-4 ani, metode de desfășurare a lecțiilor individuale de recreere-îmbunătățirea sănătății pentru copii 5-6 ani și metode de desfășurare a lecțiilor de recreere-ameliorare a sănătății în grup la înot pentru copii 5-6 ani, care vizează optimizarea adaptării și dezvoltarea anumitor abilități de adaptare.

Problema științifică importanță solutionată în domeniu constă în fundamentarea practică a conceptului științific și metodologic care vizează optimizarea adaptării copiilor de 3-6 ani prin conținutul adecvat al lecțiilor de înot recreativ-terapeutic și de îmbunătățire al activității pedagogice în 2 sisteme standardizate de instruire elaborate pentru copiii de 3-4 și 5-6 ani.

Semnificația teoretică a lucrării consta în faptul că:

- au fost studiate procesele de adaptare ale copiilor de 3-6 ani și au fost identificate caracteristicile sistemice de vârstă ale copiilor de 3-6 ani, care au alcătuit parametrii și metodele de studiere a adaptării la 4 niveluri, inclusiv dezvoltarea fizică și sănătatea, fizica; fitness, dezvoltare socială și emoțională, capacitatea și atitudinea față de antrenament;
- s-au dezvoltat trei metode de înot recreativ pentru copiii de 3-6 ani „One on one", „Water enegry" și „Interactive", optimizarea adecvată al adaptării, în care principalele strategii pedagogice și standarde de predare a înotului pentru copiii de 3-4 ani si 5-6 ani.

Valoarea practică constă în implementarea în practică a trei metode ale autorului de sisteme înotului recreativ și asanativ care vizează adaptarea copiilor de 3-6 ani:

- sistemul de ore individuale pentru copii de 3-4 ani „One on one";
- sisteme de ore individuale pentru copii de 5-6 ani „Water energy";
- sistem de ore de grup pentru copii de 5-6 ani „Interactive".

Implementarea rezultatelor cercetării. În urma cercetării tezei de doctorat, au fost deschise două bazine specializate pentru copii, Lotus water energy și Turn off parent. De asemenea, în practica înotului copiilor au fost introdusă o metodă de înot recreativ pentru copiii de 3-4 ani „One on one" și două metode pentru copiii de 5-6 ani „Water energy" și „Interactive". următoarele piscine: FOC „Torpedo", Moscova, Școala Nr. 11, Chișinău, bazin AVATAR, TL Mihai Viteazul, Chișinău, Lotus water energy, Chișinău, Turnoff parent, Chișinău.

SUMMARY

VASCENCO MARINA: "Adaptation of 3-6 years old children in the system of recreational swimming" dissertation for the academic title Doctor of Pedagogy, specialty 533.04. - physical education, sports, kinetotherapy and recreation.

The structure and volume of the thesis:

The thesis includes an introduction, three chapters, conclusions, bibliography and appendices, consisting of 179 pages and the main text consisting of 137 pages. The work contains 35 tables, 33 figures, 10 appendices and a bibliography, which contains 186 sources in Russian, 7 in Romanian, 19 in English.

The results are published in 28 scientific articles.

Key words: adaptation, healthy-recreational swimming, 3-4 and 5-6 years old children.

The purpose of the paper - optimizing the adaptation of 3-4 and 5-6 years old children in the system of health-recreative swimming by improving physical development and health, physical fitness, social and emotional development, attitude and ability to learn.

Research Objectives:

1. Theoretical and Practical research in regards to the adaptation of 3-4 and 5-6 year old children in systems of various forms, organization, means and methods of conducting physical education lessons.
2. To identify the adaptation features for 3-4 and 5-6 years old children.
3. To determine adequate forms, principles, organizational measures, means and methods of conducting recreational swimming lessons, aimed at the adaptation of 3-4 and 5-6 years old children.
4. Theoretical development and experimental substantiation of recreational swimming training programs aimed at the adaptation of 3-4 and 5-6 years old children.
5. Identifying the effectiveness of experimental techniques systems for individual and group lessons for 5-6 years old children.

The novelty and originality of the research lies in the theoretical and practical development of 3 methods of conducting recreational and health-improving swimming lessons for children 3-4 and 5-6 years old, aimed at optimizing adaptation and developing certain adaptive abilities.

The scientific problem solved in the study consists in the practical substantiation of the scientific and methodological concept aimed at optimizing the adaptation of children 3-4 and 5-6 years old by adequately conducting recreational and health-improving swimming lessons and pedagogical activities in 2 systems of educational and development standards for 3- 4 and 5-6 years old children.

The theoretical significance lies in the fact that:

- the properties, characteristics and factors of adaptation of 3-4 and 5-6 years old children have been identified and studied, which include physical development, health, physical fitness, ease of contact, social orientation, sociability, self-esteem, curiosity and perseverance in achieving goals, which amounted to four levels adaptation, such as: physical development and health; physical fitness; social and emotional development; ability and attitude to learning;
- features of modern systems of recreational and health improving swimming lessons intended for 3-4 and 5-6 years old children and aimed at optimization of adaptation, were studied;
- training standards in the system of recreational swimming for 3-4 and 5-6 years old children have been determined;
- 3 programs of recreational swimming have been developed for 3-4 and 5-6 years old children.

The practical significance lies in the implementation in practice of three systems of recreational swimming for children 3-4 and 5-6 years old, aimed at optimizing adaptation by improving physical development, health, physical fitness, ease of contact, social orientation, sociability, self-esteem, curiosity and persistence in achieving the goals.

Implementation of research results. During this dissertation research, two specialized pools for children, Lotus Water Energy and Turn Off Parent, were opened, where adaptive and motor abilities of children are studied and recreational swimming is taught to children from birth to 10 years old.