DOI: https://doi.org/10.31392/UDU-nc.series15.2024.2(174).05

Zubko Valentyna Teacher at the department of health and sports technologies, National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute" Kyiv, Ukraine. Cherevichko Oleksandr Senior Lecturer at the department of health and sports technologies, National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute" Kyiv, Ukraine. Smirnov Kostiantyn Senior Lecturer at the department of health and sports technologies, National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute" Kyiv, Ukraine. Smirnov Kostiantyn Senior Lecturer at the department of health and sports technologies, National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute" Kyiv, Ukraine. Garnusova Viktoriya Senior Lecturer Department of Physical Education and Sports Training, National Aviation University, Kyiv, Ukraine.

## DIFFERENT AREAS OF STUDY AND TRAINING OF STUDENTS AT THE UNIVERSITY. BEGINNER AND SPORTS LEVELS OF SWIMMING TRAINING

The effectiveness of acquiring knowledge in universities depends on many factors' conditions, including the level of functional state of the students' bodies, their attitude to a healthy lifestyle. A young specialist should not only be well-prepared in the chosen profession, but also comprehensively developed, able to solve the most difficult professional tasks, and have an optimal level of health. The problem of increasing working capacity and functional capabilities in the conditions of a significant increase in the educational load of students is currently a very urgent task. Physical culture is the most effective factor in preserving and strengthening health. With optimal physical activity, all organs and systems work economically, adaptive reserves are large, and the body's resistance to adverse conditions is high. The attention of scientists who study the processes of adaptation is mainly directed to the degree and nature of changes in the main physiological indicators in healthy people and people engaged in sports. Attention to student youth is explained by the fact that university students are the avant-garde direction of Ukraine's youth. Their ability to work as future engineers, managers, and marketers largely depends on their physical and mental health and social well-being. Due to well-known socio-economic and environmental reasons, the health of the population in general, and of students in particular, has significantly deteriorated. Studying at a university also does not contribute to improving the health of young people. Firstly, the university does not provide physical education throughout the entire period of student life. It lasts only the period allocated for the educational process.

Key words: swimming, knowledge, student, adaptation, methods, skill.

Зубко Валентина, Черевичко Олександр, Смірнов Костянтин, Гарнусова Вікторія. Різні напрями навчання та підготовки студентів в університеті. Початковий та спортивний рівні підготовки з плавання. Ефективність засвоєння знань в університеті залежить від багатьох факторів, умов, зокрема від рівня функціонального стану організму студентів, їх ставлення до здорового способу життя. Молодий спеціаліст повинен бути не тільки добре підготовленим в обраній професії, а й всебічно розвиненим, здатним вирішувати найскладніші професійні завдання, мати оптимальний рівень здоров'я. Проблема підвищення працездатності та функціональних можливостей в умовах значного збільшення навчального навантаження на студентів на даний час є дуже актуальним завданням. Фізична культура є найефективнішим фактором збереження та зміцнення здоров'я. При оптимальному фізичному навантаженні всі органи і системи працюють економічно, адаптаційні резерви великі, стійкість організму до несприятливих умов висока. Увага вчених, які вивчають процеси адаптації, в основному спрямована на ступінь і характер змін основних фізіологічних показників у здорових людей і людей, які займаються спортом. Увага до студентської молоді пояснюється тим, що студентство є авангардним напрямом в молоді України. Від фізичного та психічного здоров'я та соціального благополуччя великою мірою залежить їхня працездатність як майбутніх інженерів, менеджерів, маркетологів. Через відомі соціально-економічні та екологічні причини суттєво погіршився стан здоров'я населення загалом і студентів зокрема. Навчання у ВНЗ також не сприяє зміцненню здоров'я молоді. По-перше, в університеті не проводиться фізичне виховання протягом усього періоду студентського життя. Воно триває тільки період який виділено на навчальний процес.

Ключові слова: плавання, знання, студент, адаптація, методи, вміння.

**Formulation of the problem.** The main socio-economic indicators that influence the formation of interests in the field of physical culture are considered to be the social-class division, the level of state funding, and the material capabilities of various social groups of the population. The transition to a market economy in the provision of physical culture and health services to the population leads to the fact that graduates of secondary schools do not possess the vital skill of swimming. The level of swimming training of students is very low, most of them do not know the technique of sports methods, and many (from 10 to 40%) cannot even stay on the water. According to the survey of 2nd-year students at the National Technical University of Ukraine "KPI named after I. Sikorsky", from 25 to 48% (depending on the faculty) know how to swim, less than 1% know the technique of sports swimming methods.

Swimming is a cyclic type of human motor activity in the water environment, which has a huge health potential, a

vital skill related to mastering the water environment and the ability to move in it. It is a component of physical culture, therefore, it uses the basic concepts, categories, regularities, principles, theoretical positions of physical culture, takes into account the modern realities of its development. Swimming is a vital skill. Mass swimming lessons matter. The great positive effect of physical exercises in water is as follows: unloading the spine - creating favorable physiological conditions for the spine and restoration of the correct position of the body; education of correct posture; improvement of movement coordination; increase in muscle strength and tone; correction of flat feet; posture of correct breathing; improving the function of the cardiovascular and respiratory systems; hardening; acquisition of swimming skills; development of willpower, emotional release, prevention of psychological stress.

Analysis of literary sources. In recent years, studies have been carried out proving the important role of physical activity in promoting health and expanding the adaptive reserves of the body of students. At the same time, there is a significant decrease in the physical activity of young people. Having studied such authors as Haycraft J. [1], Heusner W. [2], Monu J.M. [3], Baechle T.R. [4] it became clear that the level of physical education of young people needs to be improved. This concerns increasing health efficiency and ensuring harmonious development.

For successful swimming training, it is necessary to observe the basic pedagogical principles that reflect the methodological principles of training and education: consciousness and activity, systematicity, accessibility, strength, visibility, and individualization. The principle of consciousness and activity. Training effectiveness swimming is largely determined by the conscious and active attitude of those involved in their studies. The degree of consciousness depends on age, characteristics of perception and thinking. The principle of consciousness requires students to have a meaningful attitude towards the educational material being studied. Understanding the essence of the movements being performed increases the consciousness of students, stimulating their activity in the learning process. Swimming activity appears when they are interesting. The activity of students should be aimed at nurturing independence and initiative [3]. One of the forms of developing these qualities is teaching simple pedagogical skills and self-control skills. The method of initial swimming training involves dividing students into pairs (one performs, the other observes and corrects) - a technique widely used in practice. By performing tasks one at a time, students learn to insure each other, provide assistance and achieve the correct execution of exercises under the direct guidance and control of the teacher. Self-control and independence skills are strengthened by doing homework. An example would be the use of complexes of general developmental, special physical and simulation exercises performed before classes. Tasks for independent work are also useful: learn a set of exercises on land; learn to exhale into the water, open your eyes in the water; increase the distance you swim. The development of activity in students is facilitated by systematic assessment of the successes they have achieved and encouragement from the trainer-teacher. They can be carried out during the exercises during the lesson, at the end of each lesson and at the end of the swimming training course. The principle of consciousness also requires students to understand the applied value of swimming, the ability to apply the acquired knowledge (if necessary) to save their own life and provide assistance to the victim on the water [2].

The principle of systematicity. Swimming lessons should be carried out regularly, at certain intervals, so that loads are systematically alternated with rest. With systematic training, swimming skills are mastered faster and better, as well as the level of physical fitness increases. Principle The systematicity and strength of consolidation of skills in training is most fully reflected by regular repetition of the material covered. Repeated repetition of each exercise in the process of learning to swim is an indispensable law of physical education. Improvement is achieved through repeated repetitions. Swimming techniques and basic physical qualities, improving functionality. The need for multiple repetitions involves the use of a large volume of various exercises, changing the conditions and methods of their implementation. After learning exercises on land and in water, they are performed in a competitive and playful form, in easy and difficult conditions: with support, with weights, and additional resistance. This allows you to maintain interest in swimming, which, as already noted, is not emotional enough. As a result of repeated repetitions, the swimming skill quickly becomes strong: a person will never forget how to float on the surface of the water. Of course, without regular exercise, fatigue sets in faster.

swimming time, but the acquired skill remains for life.

The principle of accessibility. Three methodological rules that most fully reveal the principle of accessibility, closely related to the principle of consistency: from simple to complex, from particular to general, from known to unknown. The principle of accessibility assumes that students are given feasible tasks that correspond to their age, level of physical and swimming fitness. Availability of the exercise determined by fewer attempts to master it. When determining the sequence of learning an exercise, one should be guided by the laws of "transfer" of motor skills and so-called innate automatisms. In the process of learning movements, "positive transfer" of motor skills is widely used, which manifests itself most effectively in the initial stages of training (for example, with parallel training in front and back crawl techniques). Transfer skills occurs in cases where there is great similarity in the structure of the exercises are selected. When determining the sequence of studying sports swimming techniques, such innate automatisms as habitual coordination of movements, which is the basis of walking and running, are important. Therefore, swimming training usually begins with the front crawl and back crawl methods [4].

In this case, it is necessary to take into account the phenomenon of "negative transfer" of skills, when a previously mastered movement interferes with the correct execution of a new one. For example, skill in side swimming, which is asymmetrical, may subsequently interfere with mastery breaststroke swimming technique, which requires symmetry of movements. Along with the gradual complication of technical tasks from lesson to lesson, physical activity increases, the magnitude of which is regulated by changing the duration and number of exercises performed, the speed of their implementation, the duration of rest intervals between exercises, etc. Distances gradually increase swam in every

lesson, and finally, the speed of swimming increases.

The principle of visibility. When learning to swim for the first time the principle of visualization presupposes the widespread use of not only visual observations, but also figurative perceptions and associations that the teacher's explanation evokes. Visibility in the learning process is ensured primarily by demonstrating individual exercises or sports swimming techniques in the most perfect execution possible. This could be a show educational and popular science films about the technique of the strongest swimmers, observing their training in the pool. You can also show film footage, drawings, models, sports posters, videos of open and demonstration lessons of leading trainers and teachers. To reproduce the movement, a demonstration and figurative explanation of the teacher are required, which help to understand the hidden mechanisms of movement and facilitate its development. As a rule, the exercise is demonstrated in a plane that allows students to see the shape, nature and amplitude of the movement. Such a display is accompanied by a methodical analysis of the movement, dividing it into elements, highlighting the main phases of movement, stopping at the boundary cycle poses. In swimming, this is the most used and effective visual teaching method. When implementing the principle of clarity, it is necessary to take into account age-related characteristics of perception and thinking. When studying in the student age category, along with demonstration, the role of the teacher's verbal explanation increases significantly. At this age, it is permissible to use ideomotor training in classes and analyze video recordings of movement techniques.

The principle of individualization. Implementation of this principle involves taking into account the individual characteristics of those involved in order to maximize the development of their abilities and, as a result, increase effectiveness of the learning process. Individualization of the educational process can also be carried out through personal tasks for students, when in order to master different methods, individual dosages and different modes of operation are used for the same educational material. When developing individualized training programs, one should take into account the body type and level of physical and technical preparedness of the students. An individual approach in a group form of classes is achieved by dividing the students of one training group into subgroups, depending on the level of swimming readiness.

The principle of strength. This principle is closely related to ensuring that students have a strong assimilation of knowledge, which depends on objective (content, structure of the material) and subjective factors (the attitude of students towards learning, the teacher). The strength of knowledge acquisition is determined by the organization and use of various teaching methods. The more interesting the material, the more firmly it is absorbed, consolidated, and retained [4].

The following must be considered during the training process:

- 1. Thinking dominates memory.
- 2. You need to memorize the material correctly, thoroughly comprehending what you have learned.
- 3. It's easier to remember short material.
- 4. The time and frequency of classes must be consistent with the psychological laws of memory.
- 5. It is necessary to interest students and maintain their interest.
- 6. It is necessary to consider the capabilities of those involved.
- 7. Give new material only against the backdrop of interest and a positive attitude towards the tasks.
- 8. Present educational material in a logical sequence.
- 9. Carry out a differentiated approach to students.
- 10. To ensure a solid assimilation of the material, use emotional presentation, visual aids, and games.
- 11. Specify more clearly the requirements for action and what results should be obtained.

**Teaching and training methods.** Teaching methods are the methods and techniques of a teacher's work, used to ensure a quick and high-quality solution to the task at hand - mastering the skill of swimming. When teaching swimming, three main groups of methods are used: verbal, visual and practical.

Verbal methods. These include description, explanation, story, conversation, guidelines, analysis and analysis of actions, commands, and orders, counting. Using these methods, the teacher helps students create an idea of the movement being studied, understand its form and nature, the direction of impact, comprehend and eliminate the mistakes made. The teacher's short, precise, imaginative, and understandable speech greatly contributes to increasing the effectiveness of classes. The emotional coloring of speech enhances the meaning of words, helping to solve educational and educational problems, reflects the teacher's attitude to his work and to students, stimulates the activity of students, self-confidence, interest in classes.

Due to the specific characteristics of swimming, all the necessary explanations, analysis and evaluation of actions are carried out in the preparatory and final parts of the lesson on land. In water, only laconic commands, orders and calculations are used, since the conditions of audibility worsen for those involved, as well as the risk of hypothermia increases.

Description. Used to create a preliminary idea about the movement being studied. Its most characteristic elements are described without explaining why it should be done this way.

*Explanation.* Answers the main question, why should you do it. This is exactly what it is, and is a method of developing a logical, conscious attitude to the educational material. Understanding the essence of the movement is facilitated by the teacher's prompting of the sensations that students should experience when performing the exercise correctly (for example, resting their palm or foot on the water as if it were a solid object).

Story. Used mainly during games.

Conversation. Conducted in the form of questions and answers. Increases The independence and activity of students helps the teacher get to know them better.

Analysis and analysis of actions. It is carried out after completing any task or summing up the lesson. Analysis and discussion of mistakes made when performing exercises aim students to correct their actions.

Methodical instructions. They focus the attention of the trainees on the details or key points of the movement

being performed, the mastery of which will make it possible to correctly perform the exercise. Methodological instructions during swimming lessons are given to prevent and eliminate errors before, during and after each exercise. At the same time, not only the individual elements of the exercise are clarified, but also the sensations that should arise during this. For example, when performing a back slide, the following instructions are given: "belly higher"; "You need to lie on the water, not sit."

Commands and orders. They are used to manage the group and the learning process during a swimming lesson (both on land and in water).

Visual methods. The use of visual methods helps to create in student's specific ideas about the movement being studied, which is especially important when studying sports swimming techniques. Viewing a movement while simultaneously reproducing the tempo of its execution creates an idea of its form and character. Along with figurative explanation, visual perception helps students understand the essence of movement, which contributes to its rapid and lasting development. The role of visual perception is especially important during initial learning, since, being in a stressful state, students are subject to imitation, which makes visualization the most effective form of learning. Visual methods include showing the movement being studied (or swimming technique); use of educational visual aids; use of gestures.

Educational visual aids. These include drawings, posters, film grams. They are used when it is necessary to concentrate the attention of students on static positions and consistent changes in phases of movements. Visual aids show details of a technique or specific exercise that are difficult to show and explain (for example, the direction of gravity and buoyant force; optimal angles of flexion of the arms and legs in the joints when performing rowing movements; basic provisions when performing key swimming technique exercises) [2].

Video materials allow you to repeatedly show both individual elements of training variations of techniques and the techniques of highly qualified athletes. Possibility of showing equipment in different planes, close-up, in slow motion and with stops at certain details of movement has a huge learning impact. When learning to swim, where the technique of movements is learned in parts, the use of video materials is especially effective. With the help of a screen image, students get a complete picture of the method swimming, mastery of which is the goal of training.

**Conclusions.** In physical education classes. The possibilities of using exercises in the aquatic environment are revealed in detail; sets of exercises are given in water and on land, considering the degree of preparedness; sample conditioning training plans by period. Continuous improvement of the form and methods of teaching, as initial training, and improvement of swimming; systematization of swimming exercises; study of technology sports methods of swimming, starts and turns leading. The first couples describe the general classification of the "Swimming" discipline. Knowledge is given about the influence of water and swimming on the human body. The basic principles of static and dynamic swimming are discussed; basic exercises used at various stages of initial training are given. Be sure to explain the rules of safe behavior in the pool. Actions in critical situations arising on the water are discussed in detail. With trained students, attention is paid in detail to typical errors that arise during training, and methodological recommendations for correcting them are given. Using differentiated assessment criteria in our work, teachers see the significance of errors in teaching and improving the swimming training of students.

## Reference

1.Haycraft J. The effects of concurrent aerobic training and maximal strength, power, and swim-specific dry-land training methods on swim performance: A review. J. Aust. Strength Cond. 2015 P. 91-99.

2.Heusner W. The theory of strength development for swimming and other sports-part 2. Strength Cond. J. 1981 P. 36-39.

3.Monu J.M. Sport-specific training for a competitive freestyle sprint swimmer. J. Strength Cond. Res. 2013.-P. 48-55. 4.Baechle T.R. Resistance Training. In: Baechle T.R., Earle R.W., editors. Essentials of Strength Training and Conditioning. Human Kinetics; Champaign: 2000.- P. 395–426.