

MOTOR SKILLS DEVELOPMENT

(MOVEMENT, MOTOR HABIT, MOTOR SKILL)

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- People's aspirations to understand what ***movement and motor activity*** is dates back to ancient times
 - In his evolutionary development man has observed even longer, completely and comprehensively the motor acts while trying to explain them from various points of view
 - The issues about human movements have been studied also in relation to the training and educational process through motor activity.
 - There have been found certain laws in learning movement and motor skills. These are revealed also in learning the Paneurhythmy exercises.
 - On this ground pedagogical principles are also developed. They have to be applied in motor training and its variations.

ОСНОВНИ НАУЧНИ ПОНЯТИЯ MAIN SCIENTIFIC NOTIONS

спортологични знания
sportological sciences

движение
movement

двигателни действия
motor action

двигателна култура
motor culture of activity

двигателен анализатор
motor analyzer

моторика
motor potential

двигателни представи
motor notion

двигателно умение
motor skill

двиг. координация
motor coordination

двиг. възприемчивост
motor educability

психомоторика
motor psychometric

двигателен навик
motor habit

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- **Sportological sciences** are the notions and concepts received and encoded in one's memory from former generations in relation to various facts, laws and principles that refer to human perfection in the complicated process of physical training and sport activity.
 - **Movement** is a result of the impact of an outer or inner power in which a body or a material item covers a certain distance for a given period of time. Types of movement are: straight linear, curvilinear, rotary, changeable, accelerative or mixed.
 - **Motor actions** in general are a complex of particular movements within a whole motor act that influence its efficiency.
 - **Motor culture of activity** is usually accepted as:
 - a complex of knowledge about the objectives and tasks of the motor activity in one's personal life.
 - a purposeful process of teaching and education for enlarging one's motor skills and habits from the point of view of aesthetics and usefulness of movement.

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- **Motor analyzer:** Nerve centers in the cortex and its substructures which are the material base for creating motor habits and managing movement on the ground of conditional or unconditional reflexes.
 - **Motor potential:** the combination of various movements a man can do in a particular stage of his development which are used as a means for his training, development and education.
 - **Motor notions:** mentally reproduced image of an item, phenomenon or process in one's consciousness based on past experience. They are very important in acquiring the technique of movement.
 - **Motor skill:** one's ability to perform successfully a certain motor task. A natural base for motor skills are *inborn and mainly acquired motor programs* as a result of purposeful training and perfection.

- **Motor coordination**

- ability to *master and manage* movements of the body and its parts on the base of inherited and acquired skills.

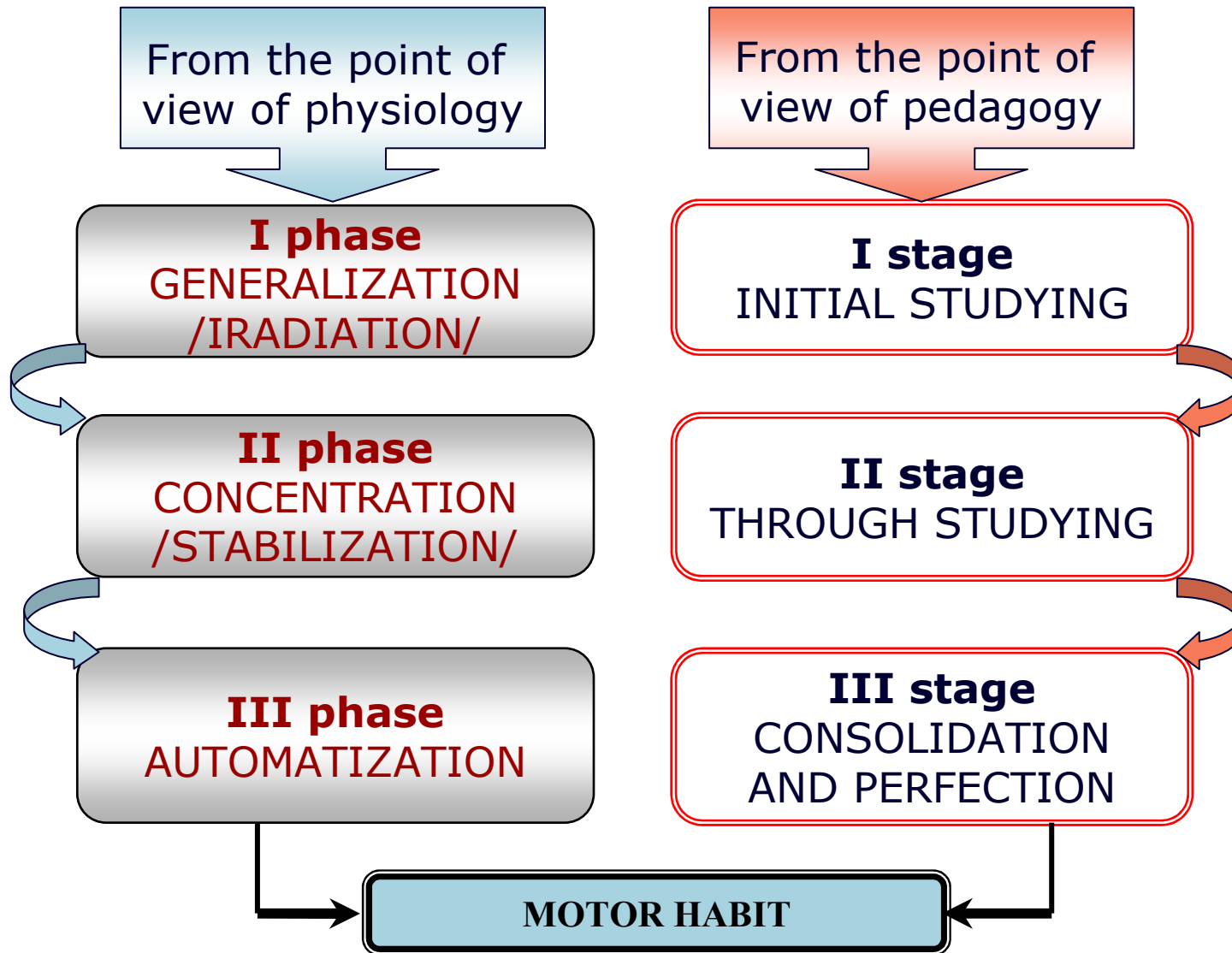
- biochemical consistency of movements within the framework of a specific sport technique, as well as consistency of motor acts between two or more partners.

- **Motor educability:** inborn ability for quicker mastering of new movements which is accepted as one of the sides of agility as a physical quality.

- **Motor psychometric:** physical activity which reflects the qualitative side in managing *elementary* movements. It depends on prerequisites that are inherited and acquired from experience to a comparatively little degree.

- **Motor habit:** it is a motor skill that has been perfected to the degree of being automatic. From the point of view of physiology this is an affirmed system of reflex acts acquired on the ground of multiple repetitions under the same conditions.

Stages in forming the motor habit





Generalization-initial studying

- The objective is to master the exercise and perform it without any details, e.g. having in mind the basics of its technique.
- The processes turned on in the cortex are transmitted not only to the **centers having to do with movement, but outside them as well.**
- As a result of this the impulses reach also the muscle groups that participate in movement.
- Movements are tense, inconsistent, sometimes modified.
- The creation of a new conditional reflex starts.
- The duration of the stage depends on the difficulty of the motor act studied and the level of the overall motor culture of activity.



Concentration-thorough studying

- The objective is to clarify the motor skill by creating conditions for turning it partially into a habit
- It is **much clearer concentration of the turned-on processes on the main center** which regulates movement and retention in the centers that don't participate in its regulation.
- Temporary conditional-and-reflex links are created that are stabilized gradually.
- Movements become more accurate and economical, one makes less mistakes, attention is focused on the details of movement.
- A dynamic stereotype is worked out.



Automation-consolidation and perfection

- The objective is consolidate and perfect the motor act, as a result of which to make it automated and turn it into a long-term motor habit.
- *The performance of movements is automated* since there is stability in alternating the processes for turning on and retention in the motor centers.
- Movements are coordinated, they are performed precisely, easily and economically. An opportunity to apply them creatively and in variation in various game situations is created.
- The volitional control on performance decreases progressively, while mental activity is aimed at other subjects, items or situations.
- The dynamic stereotype cannot be disturbed by side irritants.

Principles in forming the motor habit



1. The duration of forming motor habits depends on individual morphological, physiological and psychic characteristics of the particular individual.
2. Creating the new motor habits is not isolated, this happens on the ground of the habits mastered so far.
3. Interaction between new and old habits can have *positive and/or negative effect* and is viewed as:
 - Transfer: a habit helps faster and more accurate formation of another habit. This is a result of the similarity between the two concerning the content and form of movements.
 - Interference: creating the new habit is made more difficult by the habits learnt so far.
3. To learn the motor habit exactly requires the right pedagogical approach through using suitable tools and methods.

**БЛАГОДАРИМ ВИ
ЗА ВНИМАНИЕТО**

**THANK YOU FOR YOUR
ATTENTION**

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