

Lesson 8

**Coordinative abilities**

# **THEORY OF SPORT TRAINING**

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## **BASIC PRINCIPLES**

# COORDINATION

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What is it?

# COORDINATION

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- ✘ General quality to manage and control the movement
- ✘ **Farfel(1975):** the ability to carry out simple or complex movements fast and accurately during constant or changing conditions and the ability to learn new skills fast.
- ✘ **Hirzt:** complex and relatively independent preconditions of movement regulation

# COORDINATION

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From point of biomechanics :

Mastering the many degrees of freedom involved in the movement.

# SKILLS

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The abilities to do the movement, which are learned during training process.

# PRECONDITION OF COORDINATION

- ✘ Good state of central and peripheral neural system.
- ✘ Good state and function of senses - visual, kinaesthetic, auditory
- ✘ Good state of muscular system
- ✘ Good connection of neural-muscular system
- ✘ State of psychological processes

# **QUALITY OF COORDINATION WE CAN OBSERVE**

- × As the fast and correct or appropriate reaction to the stimulus**
- × As an ability to take up or to maintain the right position, posture of all body**
- × Coordination of smaller parts of body, and their integration to the harmonized complex movement**
- × In the better and faster learning of new movement in short time and in good quality**
- × More suitable and faster adaptation to the new condition and changing inner or outer conditions during movement, during race, competition**
- × In the choice of the right movement programmes and to carry out the movement with high economy**

# MOTOR LEARNING

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- × **Cognitive Phase (generalization)**
- × **Associative Phase (differentiation)**
- × **Autonomous Phase (automation)**
- × **Creative coordination**



# COORDINATION

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- × General

The ability carry out very effectively various skills without sport specialization

- × Specific

The ability of effective and intensive performance of various specific movements, technique of chosen sports.

# **PARTIAL COORDINATIVE ABILITIES**

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- ✘ Balance
- ✘ Kinaesthetic differentiation
- ✘ Spatial orientation
- ✘ Reaction
- ✘ Rhythm
- ✘ Synchronization of movement

# DEVELOPMENT OF COORDINATION

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- × Age
- × Frequency
- × Structure of training unit
- × Fatigue
- × Variability, diversity,
- × versatility

# THE GROUPS OF EXERCISES FOR CA DEVELOPMENT

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- ✘ Activity of single parts of body (mirror movement, asymmetric..)
- ✘ Movement activity in various environment
- ✘ Activity with exclusion of senses
- ✘ Activity in pairs or more athletes in group
- ✘ Activity to various stimulus, signals
- ✘ Movement activity in various combinations

# BASIC EXERCISES

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- ✘ Acrobatic exercises, gymnastic exercises
- ✘ Exercises with sports gear,
- ✘ Exercise in another environment – water
- ✘ ABC from another sports – Games, athletics
- ✘ Exercises with hurdles
- ✘ Combative and small games
- ✘ Throws,
- ✘ To carry some gear, equipment, load