

COMPLEMENTARY TRAININGS



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PAWEŁ POSŁUSZNY

ANATOMY & PHYSIOLOGY

The basic knowledge before starting physical exercises should be the knowledge of one's own body and the structures that build it. In order to work effectively on your body you need to know what muscles participate in training sessions and how to effectively control muscles through the nervous system. To be a conscious athlete and trainer you need basic anatomical and physiological knowledge. It will help you to improve your work with your body and avoid injuries.

The aim of the course is to familiarize the student with the structure and function of the human body, especially in the aspect of the passive and active movement system and the processes of controlling this movement based on basic information from the nervous system, cardiopulmonary system and internal organs. All the connections between individual systems and their role in physical activity in this sport training will complement the content of human motor skills.

1. Anatomy:

Definition of anatomy, place of anatomy among biological sciences. History of anatomy. The meaning of learning anatomy. Basic concepts of nomenclature of anatomy.

Plan of human body structure: symmetry and asymmetry, lines, axes, planes, human body area.

2. Bones (osteology):

Characteristics of connective tissue, types of continuous bone connections. Division of the body by axes and planes. Around the body. Structure of bone tissue. Division of bones and places of their occurrence. Bone connections. Anatomical division. Criteria and types of connections (strict and free).

Other criteria of division. Bone properties, bone division, types of bone and cartilage connections, joints: division, structure, functions, joint auxiliaries with particular emphasis on ligaments.

Bone points and their importance in sports training.

3. Joints (arthrology):

- division of joint joints
- degrees of freedom and kinetic chain closed and open.
- range of movements in human joints.

4. Spine:

General structure of the vertebrae. Division of the spine into segments, taking into account differences in structure. Connections within the axial skeleton: Continuous and joint in the pre-sacral part of the spine. Connections to the skull.

The spine as a whole.

- spine as a whole: curves of the spine, physiological and pathological,
- construction of the vertebrae and the intervertebral disc
- connections and functions of the spine and its importance in sports training
- construction and function of the rim of the upper and lower limb and its free parts.
- a general description of the structure of the craniocerebral bone with particular reference to the base of the skull – anterior, middle and posterior fossa. Division of craniofacial bones. General structure of craniofacial bones. Skull as a whole. Joints of skull bones.
- the chest as a whole, sexual differences of the chest, chest and spine mechanics, spinal functions of the spine, curvature of ribs, relationship of the muscles of the spine and pelvis with a normal body base.
- connections within the upper limb.
- muscle division, principle of muscle action, muscle vessels and nerves, muscle auxiliaries, biological and physical properties of muscles, types of muscle work.
- connections within the lower limb.
- the kinematic chain of the upper limb. Kinematic chain of the lower limb.

5. General muscles (myology)

- muscle properties
- structural and functional division
- construction (tendon, abdomen, fascia), muscle activity
- skeletal muscle types
- topographical and functional division
- muscle supportive elements.
- construction and functions of the fascia.
- nomenclature of movements performed by muscles in joints.

6. Detailed myology: Topographically and functionally muscles and their training.

- back muscles and most important exercises for superficial and deep muscles.
- chest muscles and most important exercises for superficial and deep muscles.
- abdominal muscles and most important exercises.
- shoulder girdle muscles, arms and forearms and most important exercises.
- lower limb muscles (legs) and most important exercises.

- 7.** Additional issues of anatomy and physiology of muscles in training.
- anatomical musculoskeletal and fascial anatomical bands,
 - functional division of muscles,
 - tonic and phase muscles – the specifics of their work and training,
 - an upper and lower crossing syndrome,
 - euromuscular synchronization,
 - muscle coordination – movement patterns,
 - skeletal muscle injuries,
 - energy source for muscles during exercise of various intensity,
 - evaluation of muscle balance,
 - types of cramps and muscle work,
 - functional division of muscles,
 - teamwork of muscles,
 - respiratory muscles and types of breathing.

- 8.** Sources of energy for muscles
- division into anaerobic, oxygen and mixed.
 - the most common injuries and injuries in strength training
 - control of the locomotor system: structure and functions of the nervous system.
 - links of the locomotor system with other systems and organs: respiratory, circulatory, blood, vascular, digestive, endocrine, excretory.

- 9.** Anatomical and physiological conditioning of motor abilities as a totality of human behaviours, abilities and properties of the organism related to different ways and forms of human transmission in space. Understanding these phenomena within motor skills and their evaluation requires knowledge of basic concepts related to human fitness and physical activity. The scope of the discussed material of the motoric structure will allow us to get to know the manifestations and conditions of the motoric structure of a human being.

BASIC LITERATURE:

Posłuszny P. (red.) Anatomia Funkcjonalna dla Fizjoterapeutów Jutty Hochsild.

Ignasiak Z. Anatomia układu ruchu, Elsevier Urban & Partner, Wrocław 2007.

Ignasiak Z. Anatomia narządów wewnętrznych i układu nerwowego człowieka, Elsevier Urban & Partner, Wrocław 2008.

Bochenek A. Reicher M. Anatomia człowieka. T. I-IV, PZWL, 2007.

Feneis H. Ilustrowana anatomia człowieka. PZWL, Warszawa 2007.

Górski J. Fizjologia Człowieka PZWL. Warszawa 2010.

Sharkey B.J., Gaskill S. Fizjologia sportu dla Trenerów. Centralny Ośrodek Sportu Warszawa 2013.

SUPPLEMENTARY LITERATURE:

Marciniak T., Anatomia prawidłowa człowieka, t. I-III, Wrocław 1991.

M. Ziółkowski (red.) Anatomia topograficzna człowieka, Volumes Wrocław 1997.

J. Sokołowska-Pituchowa. Anatomia człowieka. PZWL, 2008.

Narkiewicz J. Moryś J. Anatomia człowieka. T. I-IV, Wrocław 2010.

M. Bruska, B. Cizek, P. Kowiański, W. Woźniak. Anatomia Gray – podręcznik dla studentów. Elsevier Urban & Partner, Wrocław 2010.

Gielecki J.S. Żurada A. (red.) Prometeusz. Atlas anatomii człowieka. T. I-III. MedPharm Polska, Wrocław 2009.

Lippert H. Schematy Anatomiczne. Urban & Partner Wrocław 2004.

Sobotta J., Atlas anatomii człowieka, t. I-II, Urban & Partner Wrocław 2001.

Rohen JW. Lutjen-Drecol E. Anatomia Człowieka. Tablice. PZWL, Warszawa 2012.

Jędrzejewski KS. Woźniak W. Atlas Anatomii Nettera. Elsevier Urban & Partner, Wrocław 2010.

Kopf-Maier P. Atlas anatomii Wolfa-Heideggera T. I-II. PZWL, Warszawa 2003.

Jorritsma W. 2004. Anatomia na żywym człowieku. Ignasiak Z., Żurek G. (red.) Urban&Partner 2004.

Tixa S. Atlas anatomii palpacyjnej. T. I-II, PZWL, 2008.

Z. Śliwiński (red.) Badanie palpacyjne układów mięśniowego i kostnego, Urban & Partner Wrocław 2011.

ŁUKASZ PANFIL

MANAGEMENT IN SPORT

THE CONCEPT FOR MANAGING SPORTS CLUB'S PRODUCTS

There are various concepts for management in sport. In this elaboration we would like to concentrate on the idea suggested by Prof. PhD Ryszard Panfil – managing sport club's products. Its primary goal is to make sure every club in its operation and development focuses on 5 major products, i.e.:

- particular players,
- sports team,
- sports event,
- sports company brand,
- sports discipline.

This is a very marketing-oriented approach to management. It is effective because it relies on creating top value for customers. Therefore management of sport club's products will be aimed at identifying these products, as well as producing and distributing them.

Before we review particular elements of the product, let's answer the question of what a sports product actually is from the marketing point of view (value to the customer).

WHAT IS SPORTS PRODUCT?

A sports product is any good, service, person, place, or idea which holds specific attributes and satisfies consumer's needs or requirements related to sport, ability or recreation. (Sosgórnik 1999)

Sport product – a property, service or combination of these elements intended to satisfy needs of sport event spectators, competitors or sponsors. (M.D. Shank, Sports Marketing)

SPORTS CLUB PRODUCTS ACCORDING TO PROF. PANFIL

1. *Sport discipline.* A type of sports game determines the value of product generated by the sports club. Considering factors which specify this value, we distinguish global and regional popularity of the discipline, expressed in the number of players and their spectators. Another factor is size of investment and capital value of clubs and unions. There is no doubt that football (soccer), as a discipline, is popular around the world. With regard to regional popularity, professionalization covered baseball in the United States and Japan, American football in the United States and rugby in Great Britain, France and Australia.
2. *Players,* aside from the team they form, serve as a basic element of the sports company's product. A notable criterion for market assessment of players' skills is individual statistics related to attack and defense in the game. The biggest market value are the so-called playmakers, that is players who score and bring other players to the position from which they could score. In this case it is important that they have individual skills, relatively dependent upon their partners, and cooperative skills, absolutely dependent upon partners. The criterion whose significance rises along with development of player's career is media attractiveness which is determined both by player's behavior and his/her image shaped by PR specialists. Another equally important indicator of player's value is the number of performances in the national team. Also a region tradition factor in sending player does matter, e.g. hockey players from Canada, footballers from Brazil, table tennis players from China. (Panfil 2004)
3. The sports performance of a sports club is determined by the competition class as well as results in classified competition,

which is related to market value of the team. If a team is ranked highly in the competition, it can qualify to the higher class and its value rises, yet the rank of the competition is crucial as well. Continental and domestic competitions are of the highest market importance. Similarly, participation in the competition kept by domestic and international sports unions raises this value, assures sponsors in the form of large national and supranational companies as well as determines media interest, including electronic media.

4. The essence of a *sports event* is its unpredictability, which makes it even more interesting, while the final result – surprising. The rank of the competition is an essential criterion of interest among spectators and media. A need to meet requirements related to spectacularity rate and effectiveness results in permanent changes in the regulations. During the performance, the sports product is not only the game itself but also elements which create the physical and emotional space in the form of musical and visual settings, infrastructure and diverse forms of media coverage. (Panfil 2004)
5. A *trademark* is any word, name, symbol or tool, slogan, packaging design or combination of these factors which serve to identify and distinguish a particular product from others on the market. Even a sound, colors, fragrance or hologram in some circumstances may be the trademark. A service mark is defined analogically to the trademark, yet it is used under service sales or advertisements to identify and distinguish services of one company from others. As for professional clubs, the sports club identification mark usually is a legally protected trademark. The mark of particular clubs is also supplemented by an emblem (Panfil 2004).

ACQUIRING SPORTS COMPANY PRODUCTS

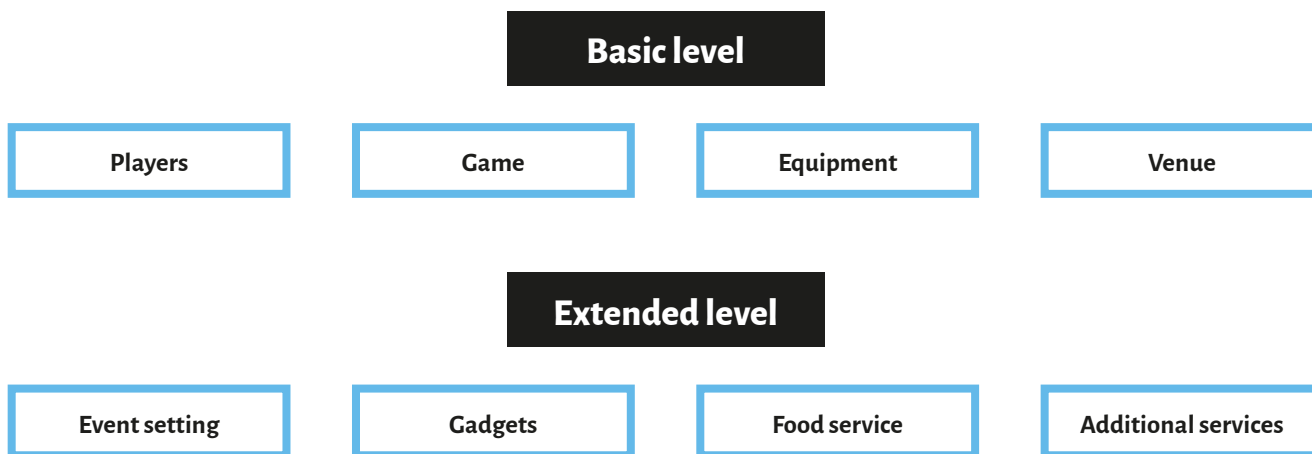
To acquire key products of the sports club effectively, it is necessary to adopt a suitable strategy adjusted to the economic position of the sports company. Speaking of players, it is obvious that the least expensive “good” is players who still lack sports experience and have not been promoted in media. These are usually young players who have just started their career in the sports club. Another stage in development is players who have sports experience but still have not been promoted in media, who wait for their opportunity to become popular in mass media. The top level of the technical and social development is represented by players with sports experience and promoted in media, who most often play key roles in their clubs.

It is similar in the case of coaches whose range of input value may range from lack of work experience and poor media position, through lack of work experience and strong media position, or high professional competence and poor media position, and end up with high professional competence and strong media position.

The club infrastructure includes logistic workers' competences and any issues related to organization of the event and its functionality. They are indispensable if all other elements of the sports product are supposed to work efficiently.

Marketing specialists' competences and market position of the cooperating media are elements of PR which plays a very important role by promoting the image of the sports club. It also influences all other

| Sports product elements | Sports product values criteria |
|-------------------------|---|
| Trademark | <ul style="list-style-type: none"> – interest in logo – popularity range |
| Sports event | <ul style="list-style-type: none"> – aesthetics and functionality of sports infrastructure – form of media coverage – sports rules |
| Sports team | <ul style="list-style-type: none"> – sports performance (team results) – style (attractiveness in media) |
| Sports persons profi | <ul style="list-style-type: none"> – sports performance (individual results) – position in the game (player's profile) – attractiveness in media |
| Sports discipline | <ul style="list-style-type: none"> – global and regional popularity – size of resources (infrastructure, funds, people) |



Sports product structure (sports event)

Own source on the basis of Z. Wańkowski. Conditions and ways of implementing a marketing orientation in sports clubs. Wydawnictwo Akademii Ekonomicznej w Poznaniu, Poznań 2007, p. 185

elements by promoting and showing sports company's premises and infrastructure, players and coaches who work in the club. It is often influenced by frequency and length of presence in various media (the press, radio, TV, Internet).

The interest in a sports event and considerable attendance depend on the players' performance level. Exceptional skills, display of skills, showing off, stamina evoke interest among spectators. Players in sports clubs are part of the (personal) resources and contribute substantially to the quality of the performance through two qualities: skills and ability to draw media's attention. The structure and equipment of the pitch, stands and sports hall have an impact on how the event is perceived. The resulting capacity, acoustics and visibility create a memorable atmosphere which determines the general value of the event.

At the second (extended) level of the sports event are elements which are supposed to provide a recipient with additional benefits taking a form of comfort, security and unforgettable moments. These are the following: event setting, gadgets, food service and accompanying services. The organizer of the sports event must take care of a suitable setting which will evoke spectators' emotions and create a magic atmosphere, e.g. through employment of a master of ceremonies, music breaks, music band gigs, dances, contests for spectators, etc. Gadgets complement the basic offer. For the recipient they symbolize membership in the club friends circle, and for the sports club they can be an additional source of income. Depending on the type and duration of the sports event, food service can be another element shaping the general value of the competition. Similar to food service, additional services supplement the basic offer, that is the show. A group of typical accompanying services includes free parking space, assistance in transporting to the venue, competition statistics brochures, etc. (Wańkowski 2007)

The company, including a sports company, is primarily concerned with direct sponsoring, advertising, participation in stock market, diversification of sports club into new markets and its own know-how. The notable effects are incomes arising from sponsor's promotion, profits from sale of company's share and other services branded by the club's mark. Considering top European clubs, technology, training techniques and experience are transferred to other countries and sold there. The sale of the trademark is of paramount importance as well.

DAMIAN PAWLIK

MOTOR DEVELOPMENT IN YOUTH

1. MOTOR DEVELOPMENT IN YOUTH

1.1. MOTOR SKILLS STRUCTURE

Movement is the main attribute of life, accompanying the person from birth to death. It is such a natural activity that we often are not aware of its significance. We begin to appreciate its value when it becomes a desirable activity, e.g. in sport or rehabilitation. Movement is the feature of the organism that most broadly describes the motor abilities of man. It is defined as: *'the whole of human behaviour, capabilities and properties of the body related to various ways and forms of human transport in space'* (Raczek 2010). Motor abilities are the basic unit for describing human motor potential. These are complexes of individual psychophysical properties (predispositions) developing on the basis of innate genetic capabilities that condition the quality of the course and the final effect of motor activity. Predispositions can be described as relatively elementary structural and functional features of the organism largely genetically determined and measurable by methods specific to basic sciences. Raczek et al. (2003) defined the concept of motor abilities as: *'individual, psychophysical properties of a person, determining the level of their mobility capabilities'*.

The division of motor abilities is based on the dominant, biological basis of predispositions, which can be divided according to the following processes: information (control and regulation), energy (metabolism), orientation (perceptual, cognitive and mnemonic processes) and stimulation (motivational, emotional processes and volitional)

Three groups can be distinguished:

- Coordination motor abilities – predominately neuro-sensory and psychological predispositions
- Condition motor abilities – mainly energy and morpho-structural predispositions

- Comprehensive motor abilities – no clear dominance of predispositions from abovementioned groups

1.2. COORDINATION MOTOR ABILITIES

Coordination movement is of great importance within the broadly understood human motor activity, especially in competitive sport where the focus is on achieving maximum results. It constitutes the basis for specific movement activities in pursuit of sports championship. It facilitates making complex movements and transforming one movement into another, and thus faster learning of the sport technique. The level of motor coordination requires special attention both in experienced players as well as young adepts of team sports.

The word coordination is derived from the Latin *"cum ordo"* and means *"with order."* Coordination can also be defined as *"the interaction of the central nervous system and skeletal muscles to perform a motor process aimed at achieving the intended goal"* (Šimonek 2014). The level of coordination depends mainly on movement control processes combined with the efficiency of the neuromuscular system, as well as the level of analysis processes.

Issues related to coordination motor skills are among the least studied issues of anthropomotorics. The source of the problem lies in their precise isolation and definition. Difficulties are sought in the functioning of the central nervous system and sensory organs. The way the predispositions are extracted is not insignificant, as it is often intuitive, and the measurement depends on the equipment. A thorough analysis of the theory has allowed the division of coordination motor abilities into special, specific and general abilities.

Special CMA – define human capabilities for optimal control and regulation of psychophysical mechanisms of motor activity. They refer to homogeneous groups of motor functions, systematised according

to increasing complexity. This is the so-called vertical classification of coordination motor skills (Ljach 2003). Special CMA can be seen in: various locomotion movements – cyclic and acyclic, non-locomotive movements in space, manipulative movements, movements involving shifting objects, long distance throws, accuracy throws, technical and tactical actions in team games, offensive and defensive activities in martial arts, activities related to work and everyday life.

General CMA are evident mainly in students at young and middle school age. In the practice of physical education, students are often observed who equally effectively perform motor tasks requiring orientation in space, balance, sense of rhythm, etc. This confirms the existence of a factor referred to as general coordination preparation. With time, the contribution of this factor declines and the uneven distribution of the level of specific coordination motor abilities is increasingly visible.

Specific CMA is the so-called horizontal classification of coordination motor abilities. The number of abilities varies from five to eighteen, depending on the author. This is a result of the difficulty in identifying and classifying coordination predispositions. The most frequently mentioned Specific Motor Coordination Abilities are the manifestations of: balance, coupling motions, motor adjustment, kinaesthetic differentiation, high frequency of motions, fast motor reaction, time-space orientation.

1.3. STRENGTH MOTOR ABILITIES

Strength motor abilities include strength and endurance skills. Their level depends primarily on morphological and structural properties such as body height, the predominance of fast – or slow-contracting muscle fibers, as well as energy factors related to energy production from appropriate energy sources.

Endurance is defined as the ability to exercise for a long time without compromising on performance. Endurance can be discussed in two contexts; either as aerobic or anaerobic endurance. It is a key ability necessary to build up the form of players in every sport. It is responsible not only for performing for a long period of time but also for increasing the intensity of effort without reducing the efficiency of a given physical activity. An example of achieving high intensity during sustained effort can be a marathon. The world record over a distance of 42.195 km is only 2:01:39. The pace in this race was on average 20.8 km/h, while when breaking the Polish record in the 10 km race the average pace was 21.5 km/h and the pace in the 5 km race was 22.5 km/h. Another attribute of a high level of aerobic endurance is faster regeneration of the player following training. The key to preparing aerobic endurance is to perform at maximum intensity in terms of predominance of aerobic processes. To do this, an individual oxygen metabolism threshold should be established. It is defined as the moment of intensity at which the player's body balances the production and utilization of lactic acid. Anaerobic

threshold can be defined in several ways. The easiest way is to subtract the age of the player from 220 bpm and calculate 85%. However, this method does not work for active athletes. A more accurate method is to perform a progressive maximum test (e.g. bip test) in which HR max is being determined and then 85% calculated. The value obtained, e.g. 168 bpm is a threshold that should not be exceeded if aerobic endurance is to be formed. In order to determine the intensity value for the oxygen threshold even more precisely, an invasive measurement (measurement of lactate concentration) should be performed; during the increasing intensity, the skin is punctured to collect a drop of blood for the lactic acid analyser. The oxygen threshold will always be at the level of 4 mmol * l. At this level we record the intensity of exercise and during the training session we try to do performance or part of the performance at this level. And in the training course, we systematically increase the intensity without exceeding the threshold. Above the calculated value, the level of lactate increases sharply, and the body employs predominantly anaerobic glycolysis processes. Oxygen endurance can be shaped with the intermittent method (interval, repetitive or mixed) or by the continuous method (with constant or variable intensity). It is worth adapting the method to the nature of the discipline, e.g. for football 60 minutes of exercise, 4 minutes running with an intensity of 168 bpm, 2 minutes jogging, 6 minutes with an intensity of 160 bpm, 2 minutes jogging, etc.; the training volume should be equal to the distance the player covers during the match, i.e. around 12 km.

Anaerobic endurance is used in medium-length exercise (30–90 seconds) or multiple repetitions with a shorter duration of 5–12 seconds. The formation of anaerobic endurance is aimed at increasing the number of distances covered with the greatest possible intensity (running speed). The interval method is used to shape anaerobic strength most often. The work carried out in 5–12 seconds mostly develops the power and capacity of anaerobic processes (multiple runs of 20–30 m). Exercises in the 30–60 seconds range mainly develop the capacity of glycolytic processes (400 m run), while exercises lasting 150–180 seconds increase tolerance to intra-body homeostasis disorders (runs up to 800 m).

Muscle **strength** is a broad concept covering many aspects of motor preparation. Muscle strength is most often defined as '*Ability to overcome external resistance or counteract it at the expense of muscular effort*'; '*The magnitude of the moment of strength developed by the muscle in a single, maximum, isometric contraction without limiting its duration*' (Górski 2008). For team game coaches, the more accurate definition will be: 'The ability to generate maximum power by a muscle or muscle group during a single physical exertion'. This means that the player should achieve maximum strength in the shortest possible time to throw further, kick harder, hit harder. Depending on the training goal, with the use of the right amount of training per week, number of exercises, intensity and load, the coach is able to develop speed, endurance, maximum strength, power, dynamic strength as well as lead to hypertrophy or muscle definition. Strength is a resultant of mass and acceleration, so when designing micro-cycles

these 2 values should be considered to avoid body adaptation. Depending on the purpose of training, we can highlight the maximum speed or value of the weight lifted by the player.

Factors affecting the amount of strength:

- **Muscle potential** – the sum of forces that individual muscles can potentially generate
- **Utilization of muscle potential** – the ability to recruit a large number of muscle fibers
- The level of technique of the performed physical activity

To achieve the set goals and obtain appropriate training effects, the % of maximum weight, number of repetitions, number of sets and break time in the training unit should be adapted. Table 1 contains the estimated percentage of load in relation to the number of repetitions that can be performed as well as the expected training effect. Table 1 gives two values of maximum weight, which is related to individual differences between competitors. a competitor with the advantage of fast-twitch fibers (FT) will be able to lift a given value fewer times than the competitor with the majority of slow-twitch fibers (ST). The values provided in Table 1 are given for a single series.

The number of series used in relation on the training goal, the number of maximum repetitions and the value of the external load (Table 2).

Depending on the training goal, the rest time should be precisely selected. Based on many observations, a certain break pattern has been created that is used to achieve specific training effects. The leisure break has several goals, in the case of muscle strength it is expected to lead to full regeneration of phosphocreatine resources in muscles without a reduction in the excitability of the nervous system. For definition and strength endurance, the goal is to increase caloric demand and muscle resistance to prolonged exercise.

The rest break when shaping muscle strength should be around 2-7 min long, 2–5 min for the training directed at muscular power, 1.5-2 minutes for muscular hypertrophy, 45-90 seconds for muscle definition training and 0-30 seconds in order to develop strength endurance. The length of the rest break is primarily influenced by the level of fitness of the player and the training period. Currently, the most commonly used strength methods in team games are the circuit method and the bodybuilding method. Coaches are reluctant to use extreme training methods such as maximum load method or heavy athletic method for players even in the highest classes. They believe that players are not experienced enough to use such demanding methods.

With the growing interest and conscious approach to motor training, several most commonly methods used in competitive sport, both individual and team, can be distinguished: bodybuilding method, circuit method, isometric method (most often used in rehabilitation

Table 1. The ratio of the maximum weight value and the number of repetitions to the training effect

| % Maximum weight value I | % Maximum weight value II | Maximum number of repetitions possible (PM) | Training effect |
|--------------------------|---------------------------|---|---------------------------------------|
| 100 | 100 | 1 | |
| 95 | 97 | 2 | |
| 93 | 94 | 3 | Muscle strength increase |
| 90 | 91 | 4 | |
| 87 | 88 | 5 | |
| 85 | 86 | 6 | |
| 83 | 83 | 7 | |
| 80 | 80 | 8 | Muscle hypertrophy |
| 77 | 78 | 9 | |
| 75 | 77 | 10 | |
| 70 | 76 | 11 | |
| 67 | 74 | 12 | Strength endurance, muscle definition |
| 65-40 | 71-45 | 15> | |

Table 2. The number of series in relation to the training goal

| Training goal | Number of series within the exercise | LPM | Load value (CM) |
|---------------------------|--------------------------------------|-------|-----------------|
| Maximum strength | 6–20 | 1–5 | 85–100% |
| Individual movement power | 3–8 | 1–2 | 80–90% |
| Power in cyclic movement | 3–6 | 3–5 | 75–85% |
| Muscle hypertrophy | 3–6 | 6–10 | 70–85% |
| Strength endurance | 2–3 | >12 | <67% |
| Muscle definition | 2–4 | 10–15 | 65%–75% |

and prevention), plyometric method, power development method, maximum load method, eccentric method, heavy athletics method and mixed method.

The last group of motor abilities are mixed manifestations, i.e. speed, flexibility and agility, that do not exhibit dominants or morpho-structural and energetic nor neuro-sensory traits. Both the former and the latter characteristics play an important role in the level of the listed abilities.

1.4. THE PREPARATION OF A COMPETITOR AGED 10–16

Given the nature of team sports, speed is one of the key abilities. It is a difficult ability to control as it requires ongoing control. Speed is shaped only when the body is fully regenerated. Therefore, a repetitive method is used to form it, before and after which the level of lactate should be lower than 4 mmol * l. Distance covered is also important and should be adapted to the nature of the game. For football and handball, it is 30m, for basketball – 20m, and for volleyball 11m. For example, in speed training we will strive to increase the running speed on a given segment, while when using anaerobic endurance, we focus on the number of segments completed at maximum speed.

Age up to 10–13 years (youngster) is referred to as the “golden motor age”. During this period, coordination capabilities are developing the fastest and must not be neglected at this stage. After the sensitive periods (the best period for forming abilities), obtaining a high level of coordination will not be possible or will be very difficult. Secondly, this time should be devoted to correcting defects caused by an unnatural, sedentary lifestyle as well as paying attention to the mobility and functionality of individual body segments. In particular, coacher should consider the issue of proper arching of the foot, valgus/deformity in the ankle joints, valgus/deformity/hyperextension of the knee, excessive pelvic tilt and associated unnaturally increased lumbar and cervical lordosis as well as thoracic kyphosis. An equally important aspect, especially in throwing sports, is the centralization of the shoulder. Multiple throws, hits, are the reason

for strengthening and shortening the muscles responsible for the internal rotation of the upper limb and thus moving the entire shoulder joint forward. This leads to weakening of the muscles responsible for external rotation and scapular retraction. A deviation of more than 33% puts the competitor in the risk group for injury. In the youngster age category, the competitor should be taught how to correctly perform basic movement elements such as running, jumping, throwing, gripping, squatting, as well as how to correctly perform basic forming exercises: swings, circulation, and skips. Exercises that emphasize strength skills should be performed mainly with the load of one’s own body or a partner, and a large number of coordination exercises should be introduced into the training process. Mastering the basic movements and levelling differences in the strength of antagonistic muscles will significantly facilitate the work of the coach at the later stages of work with the competitor.

The age of 13–14 is the time when the player should master the basic technical elements related to performing strength exercises, i.e.: squat with the barbells, deadlift, barbell bench press, military press, farmer’s walk and in the later stages the bases of snatch and clean. The motoric goals at this age should be teaching the basic technical elements of the abovementioned methods, gaining experience in strength training, stabilization and preparation of the oxygen foundation and strength endurance to further develop motor skills appropriate for a given discipline. Teaching exercises at this age should be performed with a small external load of up to 30% MW (maximum weight). The optimal amount of training at this age should be 2 strength training sessions per week, 2–4 series and 6–10 repetitions for each exercise (no more than 100 repetitions per muscle part in a training unit). The use of the circuit method can be useful, where we program exercises for each of 6 large muscle groups (legs, abdomen, back, chest, shoulders, arms). During discipline-oriented training, stabilization elements should be incorporated, i.e. front, side, back, anti-gravity and anti-rotation exercises.

The age of 14–15 is the period in which initial adaptation training should be introduced. The purpose of this training is primarily to adapt the body to the load used and to protect against injury. It should be

remembered to include this element, because the adaptation of the muscle (belly) occurs very quickly (several weeks), while the adaptation of connective tissue, attachments, ligaments takes from several weeks to several months. The recommended period of initial adaptation training for people at the beginning of their experience with strength training is 9 months. It should be kept in mind that during the training period, the player also continues strength training. An interval longer than 3 months causes a clear reduction in both maximum values and movement techniques. After more than 3 months without training, the preparation period should be started again from initial adaptation training. In this case, it may take up to 1.5 months.

The goals of motor training for in older youngster (14 years old), a cadet (15 years old) should be gaining experience in strength training, stabilization and initial adaptation of muscles to effort. The frequency of training should be 2-3 times a week. The number of trainings will be determined by the players' disposition. If using explosive fitness tests (long jump, vertical jump, soft weight throw), players start obtaining decreasing values, reduce the number of training sessions to 2. If these parameters are constant or increase, then 3 trainings in a micro-cycle should be maintained. The load during strength training should be about 30-50% MW, from 8-12 repetitions with a break of 1-3 minutes between exercises. The set of exercises should include exercises for every large muscle group and altered every 6-8 weeks to avoid stagnation. When changing the set, in addition to new exercises, rotate with load, pace, number of repetitions and series. The pace of performing activities should be average. The pace in strength training is determined by 4 digits. The first digit indicates the time to complete the eccentric exercise phase, the second digit indicates the time to maintain the weight after the eccentric phase, the third digit refers to the duration of the concentric phase and the 4th digit – the duration of the weight maintenance after the concentric phase, e.g. 3.1.1.0 or 2.0.1.0.

Another year after the full cycle of adaptation should be devoted to proper strength training directed on a given sport. Most team disciplines will be based on speed, power and strengt (Fig. 1).

Each of these stages should last from 3 weeks to 1.5 months depending on the length of the season and the potential strength of the opponent in the first championship matches. At this stage, 3 typically motor train-

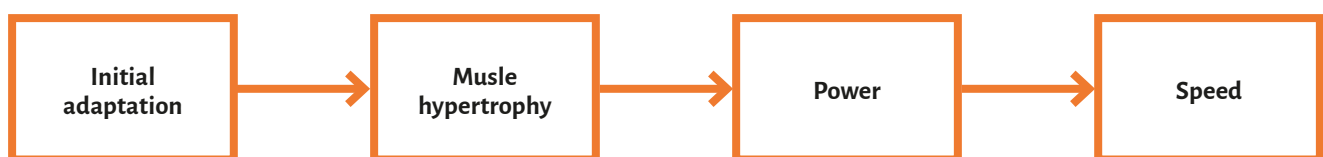
ings should become the norm, both those performed at the gym and in training conditions. The adaptation period after the detraining period should resemble that of the end of the previous stage – 12 exercises, 12 repetitions with a short rest break, in 3–4 main series. Emphasis should also be placed on developing small muscle groups. During this period, it will be equally important to work on achieving the highest level of aerobic endurance, e.g. 60 min run with variable intensity and duration: 7 min run (HR 60%), 3 min jog, 8 min run (HR 85%), 2 min jog, 6 min jog (50%) 2 min jog, 7 min run (70%), 3 min jog, 5 min (85%), 2 min jog, 5 min (65%). For experienced players aware of their capabilities, similar training can be used in small ball games.

The next stage is the development of muscular hypertrophy. This meso-cycle aims to increase muscle mass and volume. Average work pace, 3-5 exercises in 3-5 series. External load at 65–85% MW with a break of 1.5-3 minutes. This is the period of "loading", preparing the muscular system for dynamic exercises. This type of training and the first part of power training should be used after the growth processes in the competitor have finished. If our player continues to grow, the first stage should be extended and in place of the first stage of power shaping, a load of up to 60% MW should be used.

The power stage can be divided into 2 types, exercises that emphasize strength or speed. The power stage will be the longest stage containing these 2 accents. In the first stage of the mesocycle we use dynamic exercises, i.e. clean, snatch, jumping with a load, but also training with power bungee belts, crossfit ropes or soft weights. At this stage, we use 3-8 exercises of 3–6 repetitions with a load of 70–85% MW. The number of sets and reps will depend on the player's abilities. Each repetition should be done at maximum speed. If this decreases or the competitor is unable to perform the next repetition, a break should be administered or the training terminated (pace: 2.1.X.1 or in the case of cyclical exercises 1.0.X.0).

The second stage of the power mesocycle is the use of speed-emphasising exercises. The load value is 30–40% MW, 2–5 exercises, 4–10 repetitions in 3–6 main series. The necessary requirement is to perform exercises at maximum speed. At this stage, we will continue to use the fast pace, complementing basic strength training with exercises with power bungee belts, lighter soft weights, quick ladders. In the second

Fig. 1. Diagram depicting strength preparation stages for a cadet-aged player.



stage, we begin to use specialized exercises related to the specific movements performed during the game.

The last stage is related to speed formation. The speed stage should start at least 2 weeks before the start. This is the time when the athlete performs training with full regeneration of phosphocreatine resources in the muscles. At this stage, we not only develop speed skills but strongly stimulate the nervous system and give the player a chance to regenerate after a period of training with a heavy load (deload). It is important that every workout and each repetition in speed training is performed by a fully regenerated, concentrated and motivated player. Speed is formed only by doing repetitions with maximum intensity.

1.5. PLYOMETRIC METHOD IN SPORT TRAINING

In disciplines where jump height is important (volleyball, basketball, long jump, high jump), the effective training method will be the plyometric method. It consists of 4 stages preparing the player for the correct execution of the jump. The first stage aims to teach how to land properly, minimizing the strain associated with the landing phase. At this stage, we teach jump and landing competitors on the platform. The platform should have such a height that after jumping on the box the player maintains a right angle, with a trend towards an acute angle in the knee joint. A box that is too high will cause contact between the triceps of the calf muscle and the biceps of the thigh, which at the moment of getting up quickly from the squat can result in decompression in the knee joint which could lead to micro-injuries within the patellar ligament and cruciate ligaments, or rupture of these structures. A box that is too low, especially in the early stages of learning, will transfer too much load to the knee joint. The most important factors in the first stage of plyometrics is choosing the box height and learning how to use the buttock and leg muscles (quadriceps, biceps femoris, tibialis anterior, triceps surae) for jump amortisation. The second stage is similar to the first stage but without the use of a platform. There is a higher strain during the landing phase, so it is important that the player is able to amortise the jump. The third stage is related to learning to jump quickly. In this phase, we strongly stimulate the nervous system and as such it should be employed only after the warm-up, when the athlete does not feel training fatigue. In the third phase we begin to employ the myotatic reflex, i.e. the stretch-contraction sequence. The sequence should last no more than 250ms. This stage requires precise measurement of the landing phase of the jump as well as learning to land in a way so that the pressure force is directed vertically downwards (e.g. jumping over low hurdles). The last stage (fourth) combines phase 1 and 2 of plyometrics, but requires additional element, namely the determination of the height of the platform from which the athlete will jump down (deep jump). The platform should be selected so that the player makes the highest jump possible, with the shortest possible contact time with the ground. The plyometric method is mainly based on the efficient func-

tioning of the nervous system. It requires from the coach the availability of a tool measuring the player's contact time with the ground and the height of the jump (e.g. strain gauge platform), but this is compensated by the high efficiency of the exercises used.

Another effective method in forming speed and power is to use of sequential exercises. The literature reports that the training effects are even 15% higher than when using regular strength training. The method involves combining the exercise with maximum or submaximal load and then transforming the maximum force into speed. An example of such a sequence may be performing 3 squats with a weight of 95% MW and then performing 5-6 deep jumps or performing 5 leg bends on a machine with 85% MW load, then 1 (+1) squat with a barbell in the front with 100% MW and 6 multi-jumps with the shortest possible contact time with the ground. Depending on the player's training level and the ability to perform the next series with maximum intensity, we use from 3-6 series.

Each of the mesocycles should not last longer than 1.5 months; after that time, some of the competitors notice the adaptation of the body to the effort and reduction of training effectiveness. After the planned mesocycle period, the training method, exercises, and the volume and intensity of training should be changed. After the speed forming stage, you can return to the power forming stage, but with the current maximum weight values.

1.6. SUMMARY

The more you know about the player, the better coach you are. The most commonly used measurements providing information about a player are periodic tests, carried out every six months. Such requirements are set, for example, by Volleyball School Centres, as well as micro and macro-regional representations. In addition, each coach should use ongoing control during strength (load individualization), speed (speed measurement, blood lactate concentration) or endurance (power maintenance, heart rate control) training to know if the stimulus is optimal for a given player. In addition, it is worth employing a few simple tests to verify that the loads do not lead to overtraining. One of these measurements would be measuring the pulse after waking up. If the HR value is higher than normal (about 70bpm), it means that our player is tired and should be unburdened, have the volume reduced, given a day off. If the HR value begins to decrease with time, it will mean a positive response of the body to the stimuli used. Another possible test would be an explosive motor test. This type of test should be used every 1-2 weeks to verify fatigue and changes in training effects.

Considering the entire process of preparing the player to achieve the highest goals, be patient and consistent in your actions. Hurry and the desire to achieve outstanding results at the young age usually ends with aversion, reduction of training efficiency and, in the worst case, injury

in a young player. In order for the training process to go in the direction set by the coach, it should be regularly monitored using the maximum possible individualisation. Developing speed, strength and endurance must be preceded by proper preparation of the body for effort.

REFERENCES

Barcelos J.L, Morales A.P, Maciel R.N., Azevedo M.M.A., Silva V.F. (2009) *Time of practice: a comparative study of the motor reaction time among volleyball players*. Fitness & Performance Journal, 8, s. 103-109.

Bompa T., Zajęc A., Wańkiewicz Z., Chmura J. (2013) *Przygotowanie sprawnościowe w zespołowych grach sportowych*. Wyd. AWF, Katowice.

Gadula D. (2018) *Fundamenty Mistrza. Profesjonalne przygotowanie motoryczne w siatkówce*. Spółdzielnia Socjalna Maximus. Kielce

Gozlan G, Bensoussan L, Coudreuse JM, Fondarai J, Gremeaux V, Viton JM, Delarque A. (2006) Isokinetic dynamometer measurement of shoulder rotational strength in healthy elite athletes (swimming, volley-ball, tennis): comparison between dominant and nondominant shoulder. *Ann Readapt Med Phys*. 49: 8–15.

Hadzic V., Sattler T., Veselko M., Markovic G., Dervisevic E. (2014) Strength Asymmetry of the Shoulders in Elite Volleyball Players. *Journal of Athletic Training*. 49(3) pp. 338–344.

Hirtz P. (1985) *Koordinative Fähigkeiten im Schulsport*, Berlin.

Ljach W. (2003) *Kształtowanie zdolności motorycznych dzieci i młodzieży*, Centralny Ośrodek Sportu, Warszawa.

Malacko J., Stanković V. (2011) *Canonical relations between variables of coordination abilities, variables of morphological characteristics and motor abilities of boys aged 11-12*. *Sport Science*, 1(4), s. 73-77.

Malinowski A., (2004) *Auksologia*, Oficyna Wydawnicza Uniwersytetu Zielonogórskiego, Zielona Góra.

Osiński W. (2003) *Antropomotoryka wydanie II rozszerzone*, Wyd. AWF, Poznań.

Raczek J., Mynarski W., Ljach W. (2003) *Kształtowanie i diagnozowanie koordynacyjnych zdolności motorycznych*, Wyd. AWF, Katowice.

Raczek J. (2010) *Antropomotoryka*, Wydawnictwo Lekarskie PZWL, Warszawa.

Rippotoe M., Baker A. (2014) *Practical Programming for Strength Training*. The Asgaard Company.

Stojanović N., Ćoh M., Bratić M. (2016) The role of countermovement in the manifestation of explosive leg strength in vertical jumps. *Physical Education and Sport*, 14, 1, pp. 13–22.

Šimonek J. (2014) *Coordination Abilities in Volleyball*. De Gruyter Open Ltd, Warsaw/Berlin.

Wańkiewicz Z. (2002) *Wpływ wysiłków anaerobowych na wybrane aspekty koordynacji motorycznej*, Wyd. AWF, Katowice.

Żak S., Klocek T. (2008) *Model mistrza w piłce siatkowej kobiet. Próba weryfikacji*. Wydawnictwo Politechniki Radomskiej. Radom.

Zajęc A., Wilk M., Poprzęcki S., Bacik B., Rzepka R., Mikołajec K., Nowak K. (2010) *Współczesny trening siły mięśniowej*, AWF, Katowice.

EWA STELLMACH

SPORT PSYCHOLOGY

WORKSHOP OUTLINE 5 H

FOR THE GOOD START:



I think American scientists have already studied almost everything. They caught a bumblebee once out of boredom. They couldn't get over how hairy and fat they can fly so smoothly. They measured it and concluded that, according to all laws of physics – IT CAN'T BE! Bumblebee should not fly!

But, it flies!!!

If so, everything is possible!!!

Everything starts in one specific place in our body, in our head. This is where the management center is and every muscle, every organ, is subordinated to what the brain will say. The competition is not won by strength of muscle but by strength of will and mastery in eating, drinking and resting, strength of character and mental attitude.

It all starts with one simple declaration: "Yes, I start, I want to do it, I will do it!". And then you consistently carry out tasks that are supposed to lead you to your goal. It's important to know that you'll have to deal with many obstacles along the way. You create most of yourself, sometimes other people create them. They usually do it unconsciously, often in their opinion, in good faith. Often, they just don't understand what it's all about.

The bumblebee doesn't fly— because no one has told him that it can't be done!

PART 1: THEORETICAL

Preparation for competitive football player consists of physical, technical, tactical and mental preparation. These four aspects together with care for health, i.e. regeneration after training, proper diet, sleep, are the core of success in sport.



Players and coaches develop their own methods of help, and basically self-help, but often these interventions are not effective enough to bring the intended effects in the long run.

Sports psychology is developing very strongly, developing new methods of diagnosis, monitoring, and tailor-made mental training for each player.

WHAT IS SPORT PSYCHOLOGY?

This is the practical application of the principles of psychology in sport. Thanks to it, players and coaches can improve their results. Talent and physical conditions play a huge role in sports competition, but it is the psyche that plays a key role in the starting situation. It is the psyche and mental attitude that can make a player a master or break him in the locker room.

What does sport psychology help most often?

- Controlling stage fright
- Using the power of imagination (through imagination training) to improve results
- Increase and then maintain confidence
- Improving mental resilience
- Coping with stressors
- Raising the level of concentration
- Increasing the level of motivation and maintaining it
- Relaxing under pressure
- Setting goals and pursuing them
- Own energy management
- Keeping results stable
- Recovery after injury or injury
- Rising after failure
- Managing conflicts in the team, with trainers and solving them
- In building relationships based on trust
- Communication at team level, on the trainer-player, player-player line, etc.
- Developing and maintaining focus at critical moments, and other

Success in sport usually depends on what is going on in the player's head than on his talent or current condition. If you have two players with a similar level of talent, motor skills, but one of them is better focused on hard work, does not give up, does not allow an internal critic in the form of negative thoughts to direct him, treats failures as lessons from which he can draw conclusions for the future, and the second gives up at the slightest failure, he is lazy or does not believe that his talent and motor skills in regular, hard work can bring him success, the success will always be the first.

Of course, the ability to perform tasks is important, but it is the mind and mental attitude that determine whether the player will be able to perform them at the most important moments. Positive thinking is very important and at the same time very difficult.

When anger and criticism prevail in internal dialogue, the chances of success falling. However, you can change the way you think so that it is more effective and productive, which favors playing sports and achieving the desired results.

The goal of psychological (mental) training is to bring about a situation in which the body and head work together harmoniously. The point is that our thoughts and evoked emotions do not limit our possibilities through the tensions that arise in the body. Mental training helps in getting used to the start stress and difficult situations during the match, helps in developing ways of dealing with difficult moments.

To make daily training also become psychological training, it is worth taking care of six important factors:

- 1. Awareness**—Hard, daily workouts are hard work. Effective training is one that ends with reflection: what have I done right, what am I satisfied with and which still needs improvement.
- 2. Openness** – to make further attempts, not to let go when it doesn't go out, when something went wrong. This is an essential feature, both when strengthening mental and physical traits. It is also the ability to accept criticism and comments, but also to accept compliments.
- 3. Persistence**—in pursuit of the goal. Not giving up, when the results are not so good as expected. Taking lessons from losses. Looking for the answer to the question: what does this loss want to tell me? What does it inform me about? What else do I need to work on?
- 4. Patience** – not only the quantity but most of all the quality of performance is important in training and then the match. Player must be able to patiently perform repetitions, practice again and again, do not give up when the failure comes.

Do not compare yourself to other players. Everyone should develop their own system of reaching the goal, reacting in a difficult situation, be able to motivate and be determined to work hard. The player should be aware that this attitude will bring the desired effects over time.
- 5. Self-reflection and observation**—we follow small goals. It is important to observe the changes that occur in the player, in the approach to the game, in the progress that takes place, in the relationships that occur between individual team members. The self-observation is important:
 - How am I?
 - What works and doesn't work in my life?
 - What are the important things for me?
 - How do I react in difficult situations for me?
 - What situations are difficult for me?
 - How do I feel with the people who surround me? e.t.c.
 - How do other people react? Especially those who are important to me, with whom I train? It is important to want to understand another person. The quality of your life depends on relationships with other people. How you will shape relationships with other people—you will be so effective.
- 6. Consistency**—most often, long-term goals are set in football, they rarely refer to the next match. Most often they are spread over

years. To achieve them you need consistency and perseverance. And these two features are very important in shaping psychological features. The mental sphere, as well as physical training is necessary every day, from an early age, throughout the entire career.

There have been many attempts to create a psychological profile of the master – to define such a set of features that will allow to determine which athlete will succeed in sport. However, it has always been found that creating such a profile is impossible for any sport. The best players differ from each other in terms of psychological characteristics.

Usually, it's not one psychological trait, but a combination of many features determines whether a given athlete will be able to use all his skills both during training and during a match. Certainly many of us met on our way players who were so-called training champions, but in a match situation they couldn't show what they really could. In such situations it is best seen that it is not sports talent and physical skills but psychological factors that determine the quality of performance and finally the sports result as well as the satisfaction of the player and his team.

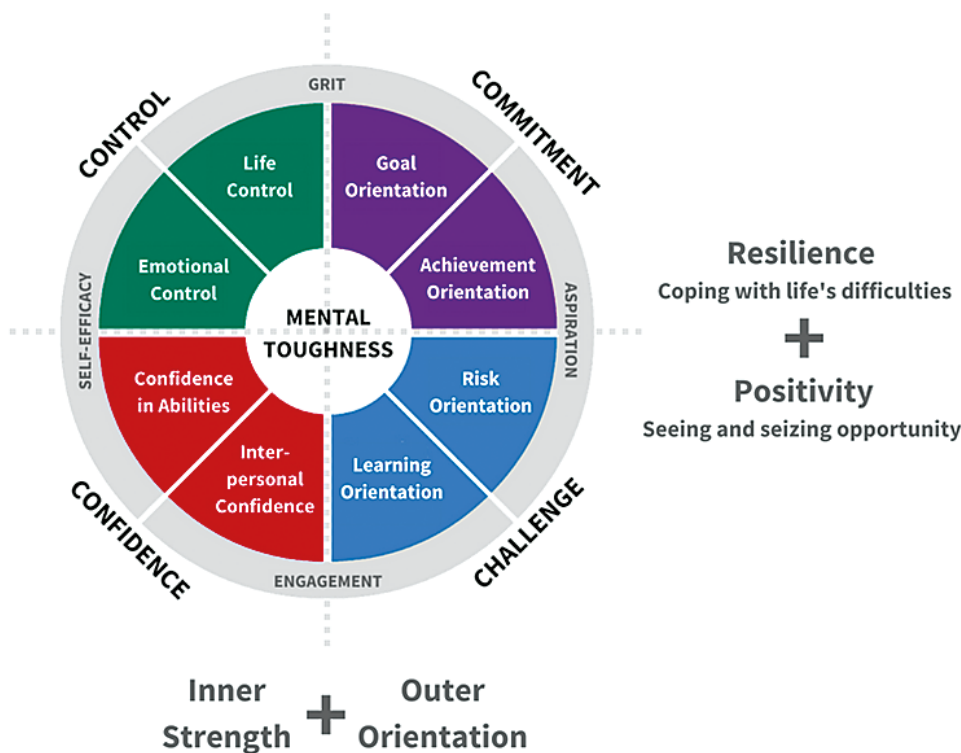
As a football coach, you're sure to use often the term mental resilience. What is it? It can be defined in various ways, for the purposes of this workshop we will use the definition of AQR International, created by two British psychologists D. Strycharczyk and P. Clough:

“Mental Toughness is a personality trait that largely determines how well we deal with challenges, stressors, pressure... regardless of the circumstances”.

A mentally resistant person cannot be blocked or give in to shock, he can defend what he believes. Mental resistance is dealing with pressure, interference and people trying to distract us. Mental resistance consists of focus, discipline, self-confidence, patience, perseverance, responsibility without complaining or excuses, visualization, pain tolerance, positive approach to tasks, the ability to set and achieve goals, and the ability to manage your emotions.

- 1. Control** – sense of influence: the belief that man controls his life and that he has influence over it. It is also the ability to manage your emotions
- 2. Commitment** – the ability to set goals, perseverance in achieving them. It's the ability to make and keep promises.
- 3. Challenge** – treating the challenge as an opportunity. Constant development and improvement, being better day by day. It's the ability to endure hardships and discomfort, going out of your comfort zone.
- 4. Confidence** – a high level of confidence in yourself, in your skills and confidence in interpersonal relationships

4 PILLARS OF MENTAL RESISTANCE – Model 4C:



Model AQR International UK

Most players and trainers have average levels of psychological resistance, i.e. they can do better or worse in different situations.

It is worth working on strengthening the mental resilience of players, coaches and entire teams. Studies show a 25% improvement in efficiency in people who regularly work to strengthen mental resilience, for example through mental training.

FEATURES OF A PSYCHICALLY RESISTANT PERSON

1. Unwavering faith in your ability to achieve goals when competing with others
2. Raising after failure thanks to great determination to achieve success
3. Strong conviction of having unique features and abilities giving an advantage over competitors
4. Insatiable desire and internalized motivation to succeed
5. Full focus on the current task despite distractions during competition, e.g. the audience
6. Regaining mental control after unexpected and uncontrolled events
7. During training and competition, pushing the boundaries of physical and emotional pain, while maintaining technique and efficiency under stress

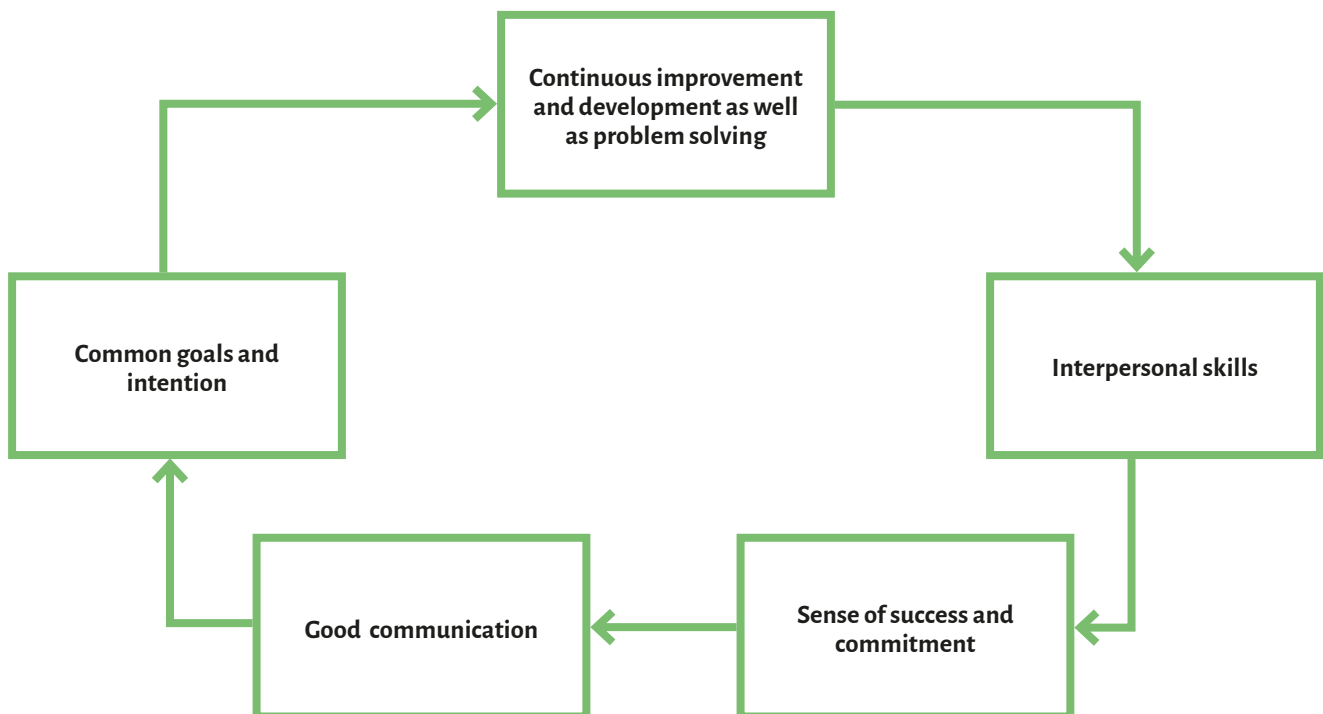
8. Accepting the inevitable anxiety associated with competition and the belief that you can deal with them
9. Not giving in to the negative influence of information about good or bad results of other people
10. Achieving success under competitive pressure
11. Maintaining full concentration despite distracting personal events
12. Turn on and off depending on the needs of sport concentration

DEVELOPMENT OF TEAM RESISTANCE

An analysis of the behavior of high-performing teams shows that if it is a high-class team it always has some typical features. These features are closely related and combined into five categories:

ACTIONS AND PRINCIPLES STRENGTHENING THE GROUP'S MENTAL RESISTANCE AND TEAMWORK

A truly high level team must have achievements in all five areas—otherwise, it will not be effective and efficient teamwork. Each mentally resistant team can take several activities to improve group work. Improving the mental resilience of individual team members is the key to good and fruitful cooperation and creating the team spirit.



The most important is the development of self-awareness of individual players and coaches, as well as understanding how they influence others through their attitude. The group should establish a set of behaviors that are better suited to the idea of teamwork and clearly signal to others that this group is able to cope with all the difficulties and adversities they encounter.

- Identify what motivates the entire team and its individual members, and then consider it when planning
- Not being afraid to ask for help when someone needs it. Encouraging each other to work hard and supporting in difficult moments
- Regular meetings to monitor progress.
- Listening to each other and asking questions. Communicating with each other!!!

BENEFITS OF WORKING ON STRENGTHENING THE TEAM’S MENTAL RESISTANCE:

Control

- Accepting that failures happen and not giving up
- Supporting each other in their efforts to succeed
- Giving yourself the time and support that everyone needs to get up after a failure
- Explaining that some things will always be out of our control—the group can agree on how to work around what cannot be changed

Challenge

- Setting priorities
- Clear and simple communication (speaking directly)
- Recognizing the strengths and weaknesses of all team members
- Learning to see challenges and obstacles as opportunities – both at the team and individual level
- Ability to set and consistently achieve goals and tasks
- See when the team and individuals need time to „recharge the battery”

Commitment

- Accepting that some tasks cannot be performed as intended and the ability to change

Confidence

- Recognize, validate and use each other’s strengths
- Not dwelling on mistakes and avoiding generalizations – not everything is black and white, you need to learn from mistakes, learn from them for the future
- Avoiding overconfidence
- Showing your body language confidence and faith in your skills and team confidence
- If confidence is down, take time to rebuild into account. Showing each other support when needed
- Constructive criticism, corrections and incentives instead of verbal attacks
- Helping team members improve their skills and strengthen confidence in their own abilities

The team must have a sense of common purpose, aspirations, effective ways of cooperation and collective identity, and individual players and coaches a sense of personal independence.

Teamwork, motivation, mutual support and repulsion, high aspirations are the qualities that matter in every team. All of them, although they bring opportunities, are also a source of stress and tension. To deal effectively with stressors and achieve desired results, the mental resistance of the team is just as important as the mental resistance of individual players and coaches.

atures of people and teams with a high degree of mental resistance

| Passion | Big interest in your work, focus on the goal, tasks to be completed, etc |
|---------------------------------------|---|
| Big faith in yourself, in your skills | Attitude like this: I can manage, after all. Not giving up. Big faith in your abilities and ability to deal with people |
| Control over what you can control. | Don't worry unnecessarily about what you can't control |
| Coping with failure (resilience) | The ability to recover from failure. Treating losing as feedback – what else do I need to do to win next time, work on it, improve it? |
| Seeing challenges, not threats | What else do I need to do to win next time, work on it, improve it. In the challenge of seeing opportunities, not threats, wanting to be better and more perfect. |
| Focus | The ability to clear the mind of unnecessary thoughts |
| Ability to relax | Recognizing the need for rest and relaxation |

Based on: D. Strycharczyk. P. Clough Mental resistance. Strategies and development tools”

PART 2 – PRACTICAL

HOW TO STRENGTHEN MENTAL RESISTANCE OF THE GROUP AND THE TEAM?

Control

- Determining who is responsible for what
- Accepting that failures happen, that we have the right to them
- Establishing an action plan, supporting team members in carrying out tasks
- Explain that certain things will always be out of our control
- Team members give themselves space, time and support in the event of problems

Commitment:

- Time to assess each team's contribution, praise if it's for what
- Accepting that there are tasks that are not possible now, that they need to be postponed or abandoned
- Consideration when planning tasks – who is predisposed to what, resources, what factors motivate my people
- Establishing a schedule of activities, goals and deadlines. Presenting this plan to the team, discussing it with him and considering any comments.
- The ability to ask for help when someone needs it.
- Communicating with each other, regular meetings to exchange comments, discuss possible problems, etc.

Challenge:

- Recognize the strengths and weaknesses of all team members
- Joint review of tasks and joint prioritization
- Permanent exchange of thoughts and views – communication
- Learn to see challenges and obstacles as opportunities – both at the team level and individually
- Dividing tasks into smaller steps, easier to accomplish, appointing people to perform them according to their capabilities
- Allowing „breaks for recharging the battery“ so that the actions can be carried out

Confidence

- Recognize and use the strengths of individual team members
- Learning from mistakes, drawing conclusions, allowing thinking that not everything is black and white
- Paying attention to your body language – do not overdo it with too much confidence

- Showing mutual support in difficult moments, giving other people on the team the right to fatigue, a moment to breathe
- Constructive criticism, corrections, incentives instead of verbal attacks
- If there is a need to criticize or reprimand someone, we always do it in private and give a chance to fix the mistake

EXERCISES TO STRENGTHEN MENTAL RESISTANCE (TO BE CHOSEN BY THE LEADING TRAINER).

Due to the small amount of hours allocated for this workshop, it is suggested that the trainer chooses two exercises, which together with a discussion and giving the theoretical foundations should fit within 5 hours of the workshop.

Exercise 1 – Achieve your goal as soon as possible

Goal:

- Improving communication, teamwork, strengthening self-confidence in interpersonal relations

Materials:

- 3 sets of similar puzzles (eg Winnie the Pooh)) or eg 3 postcards + envelopes cut into pieces

Course of the exercise:

- You divide participants into 3 teams.
- Each team receives in a box from one set of puzzles 1/3 of each set.
- You assign one observer to each team, to whom you hand the observation card (attachment)
- Teams are tasked to put together a set of puzzles as soon as possible. There is no information that faster than the others – only as soon as possible. After a few moments, the participants will realize that the puzzles do not match.
- Participants must get along with the other teams to complete their puzzles.

Discussion (the trainer asks questions to groups in turn)

- How did you work?
- What prevented you from doing the task, and what helped?
- Did people in the team get involved?
- What helped you exchange information?
- Have there been elements of competition between teams? Did it matter to you?
- What are your conclusions after this exercise?

After the participants' statements, an observer discusses his observations.

During the discussion, the trainer writes the participants' comments and conclusions on the flipchart.

Sample applications:

- it is worth helping, supporting and exchanging resources
- others also have resources that I can use and I have resources that can be useful to others
- negative competition does not help in achieving results in the team
- it is worth supporting, asking for help, etc.

Knowledge:

In the discussion, the trainer uses the table How to strengthen the mental resistance of a group and a team

EXERCISE 2 – WHAT STRENGTHENS US, WHAT WEAKENS – "FIELD FORCE ANALYSIS"

Goal:

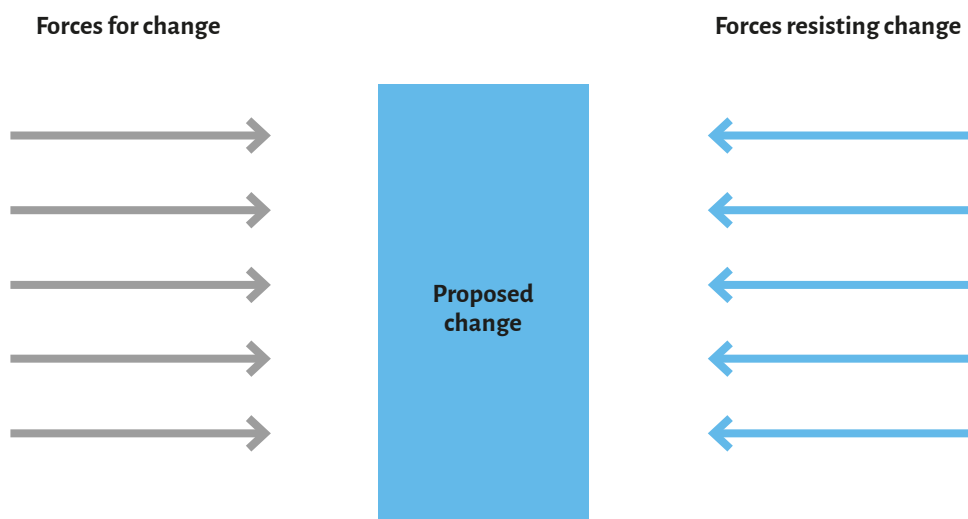
- strengthening the sense of control and impact on one's own life and on strengthening the mental strength of the team, mutual exchange of insights regarding the relationship and the impact of decisions taken on the team

Materials:

- cards with a table to be completed (attachment, 1 for two)
- flipchart paper
- markers

Course of the exercise:

- Divide participants into two
- Give each card one to fill out
- Ask participants to enter in the table columns all the resources that on the one hand help them achieve their goals, help them in their lives, and on the other hand all those things that interfere with them, constitute an obstacle, limit their activities (supporting forces and braking forces). Let it be all that comes to their mind without censorship: their skills or lack of them, people from their surroundings, equipment, infrastructure and others
- After the time has elapsed, combine the two into teams of four. Give participants 5 minutes. Let each combined team share what they have developed before, talk about what they consider to be supportive and weakening.
- Ask for attention if there are some factors that one person finds supportive of him and another as debilitating (this is often the case). In this case, ask the participants to write down such factors on a separate sheet, you will talk about it during the discussion of the exercise
- After the time elapses, reconnect the participants – now in teams of 8, give them another 5 minutes, exercise as above
- Depending on the number of people in the group, connect the participants until you have two groups. Then ask them to mark on the side of the limiting forces all those on which they have absolutely no influence with which they can do nothing. Then discuss them one by one in the group forum.
- Explain that there are things in life that we have no influence on, Usually the participants write the most factors that are independent of them, which cause the most irritation, cause the most emotions. Ask loud and clear: can you do something about it? If not, leave it, do not deal with them, but look carefully at what you influence, which depends on your actions. Focus on that.



- Ask the teams formed at the end to agree on what we have influence as a team and what we don't. Let them write on a flipchart and share it with the other group. Ask them to take a look and see what they can do today, what a little later, and what to leave for an even later time.
- The things they have written on the side of the support forces are also very important. Discuss them thoroughly. Ask the participants to remember that these are very important things, it is worth caring for them, nurturing, especially those relationships with people whom you have entered on the side of stimulating forces. Here are your strong points, things, people who will help you or you as a team.

EXERCISE 3 – I SET A “NAJ MODEL” GOAL

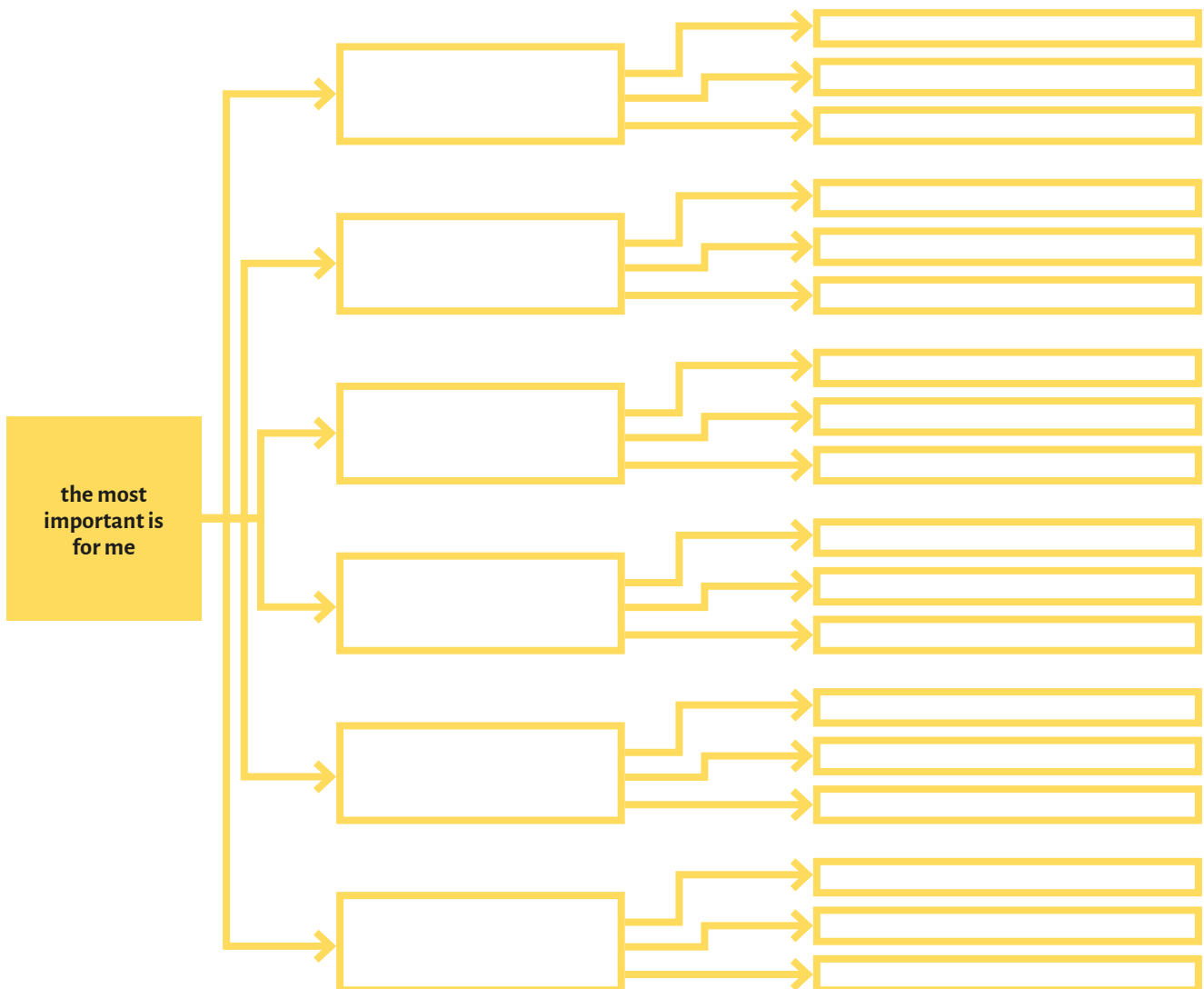
Goal:

- Arousing commitment and motivation for own development
- Learning how to set goals correctly
- Developing a team action plan (or footballer or coach action plan. The lead coach will decide what will be more useful to him during the workshop, how he will carry out this exercise, whether for individual work or for a team)

Materials:

- Annex with the NAJ Model diagram
- Prepared flipchart with the NAJ scheme
- Blank A4 sheets

NAJ model (The most important model)



Course of the exercise:

- Ask participants to write on each page what is important to them at the moment. What does they want to reach, what does they want to achieve, what is their goal.
- Ask them to formulate purpose from what they wrote so that h they would finish the sentences:
- “The most important for me is
- Ask participants to read their sentences. Make sure that it is a goal and not something unreal, which a person will not be able to achieve in the upcoming season. The idea is for the participants to be able to create a real and workable plan of the next activities.
- Before you start working (with the NAJ) model sheet), remind that setting goals in sport is a good idea to base on a few important tips:
 - start with a stable result: think about what you want to achieve and when, how much time you want to spend, when you want to achieve the goal
 - set a time frame and deadlines to keep your motivation high
 - focus on processes—on how you want to achieve your goal NAJ, what you need to do, set next steps (small steps to the goal)
 - try to make your goals measurable – e.g. if you want to improve acceleration during a match, do not write “I have to be faster: only: I want to improve my time for 100m by 0.5 sec”. Do not write “I will take care of my diet” but, for example, “I will eat a portion of vegetables every day”, “I will eat meat twice a week instead of seven” etc. Exactly and exactly what you want to do.
 - set short-term goals – small steps to a big goal
- save everything accurately, fill out the diagram exactly
- Tell people about your goals—the more people know about them, the more support you will get, but you'll also feel the greater commitment to achieve them. He will feel more motivated. You will not let go.
- Give participants 20-30 minutes to complete the diagrams
- Then ask them to join the two and talk about what they planned, share their plans, about 10 minutes

Discussion:

- Ask participants about their impressions, what goals they set for themselves (only those who want, do not pull anyone by force)
- How do they like the NAJ) model, do they see its suitability for themselves or for the team
- Explain that the model can be used at the beginning of the season to plan team activities, then we all create an action plan (e.g. at a preparation camp)

Finally, recall some of the theories about goal setting, e.g.

Work on the correct formulation of sporting goals is the basis for achieving success. Many players are surprised that just before the match they experience stress that they do not have during training or sparring (so-called training champions). This is usually because goals and perceptions of the situation change. During training, their concentration is usually focused on performing specific tasks, on their proper performance. During the match, usually the player does not think about the quality, about the correctness of the performance only about the result.

Incorrectly set goal:

- don't lose the match, make no mistake,
- don't let the goal go, just to zero behind – which is what players usually do, makes them more sensitive to mistakes, are more tense, their internal speech gets negative and usually there are a lot of thoughts incriminating the player about what might go wrong instead of what I do right.
- **It is worth diverting your attention to task objectives** what exactly do you have to do during the match. Instead of thinking about the result of what you want to achieve, it's better to focus on how you want to do it (task goals and process goals). The more real our goals are. Specific and tailored to the situation, the greater the chance of maintaining confidence during the match and persistence in the implementation of tasks throughout the match.
- Strongly emphasize that correctly formulated goals build motivation, commitment and determine to persevere despite difficulties and obstacles.

Finally, it is worth pointing out to the participants that what often hinders success in sport is:

- No goals for training and match (task goals)
- Set result goals only
- During the match, forgetting about previously set task goals and focusing only on the result

Setting unrealistic goals that do not match the player and the situation

- Goals too general worded, without specific guidelines on how to achieve them (NAJ) Model—And how will I do it? What are the steps?)

What can help them?

- Set goals for a given match and training, goals for the season, career
- Setting task goals – for specific activities
- Replacing result goals with tasks that lead to results
- A specific goal, feasible for a given player

OBSERVER CARD

Look at how they work?

Where did they start the task?

How much they talk? What words do they use, what questions?

Does the player ask for tips, does he expect them, can he ask for help, how does he behave?

„THE GUIDE FOR YOUNG ATHLETE” – LEGAL ASPECTS OF DEVELOPMENT CAREER.

FORMULA: THE LEGAL SEMINARY – PROGRAMME FOR YOUNG ATHLETES (TEENAGERS) – A BASIC KNOWLEDGE FOR YOUNG ATHLETES ABOUT A LEGAL ASPECTS.

Duration: 2 h

Preferred trainer: a competent person who has got knowledge and experience as defined by sports discipline from country Poland, Spain, Albania etc. for example lawyer, sport association staff who has got legal knowledge, specialist who's acquainted with sports law area and sport disciplines for example basketball, volleyball, football, handball.

The seminary's target: improve competence of the young athlete—who acquires a basic knowledge concerning legal grounds connecting with a future occupation id est both a professional athlete and coach at the same time (a dual career).

THE SEMINARY'S PROGRAMME:

- 1.** The legal status of athlete in the European Union.
 - a.** a basic sports legal grounds;
 - b.** athlete's rights and duties;
 - c.** athlete's personal rights .
- 2.** The sports agreement (generally).
 - a.** types of agreement conclude with athlete:
 - a sport employment contract;
 - a civil agreement – sports contract;
 - a sponsorship agreement
 - b.** a negotiatie agreement – techniques and tacitics of negoti-ation.
- 3.** The obligation (generally).
 - a.** an athlete – a sports club;
 - b.** a sports club – an athlete.

1. THE LEGAL STATUS OF ATHLETE IN THE EUROPEAN UNION (UE).

The Sport is a great vehicle for community cohesion. It brings people together and unites us in a way that few areas of the community can. The nature of sports has been important in the development of peace and the understanding of different cultures. In the European Union anyone can be a athlete. Acquisition of the legal status of athlete in European Union uphold the free movement of people in line with internal market principles. In the field of sport, this means ensuring that sportspeople can circulate freely across the EU, while taking into account the specific characteristics of the sport sector and the needs of individual sporting disciplines. Every year, a myriad of young athlete make the move overseas in order to further their burgeoning professional career. The principles of free movement for athlete-workers, non-discrimination and citizenship are established in EU law. According to European Law there it is a general principle that there shall be no discrimination on grounds of nationality, which applies independently only to situations governed by Community law for which the Treaty lays down no specific rules prohibiting discrimination.

- a.** A basic sports legal grounds in European Union. Sports law is an amalgam of laws that apply to athletes and the sports they play. Sports law touches on a variety of matters, including contract, tort, agency, antitrust, constitutional, labor, trademark, sex discrimination, criminal and tax issues. Sports law regulates the European Union legal grounds and domestic law and law of international sports organization.
 - Sport law definition – sports law refers to the collection of legal rules and regulations that govern the world of sports—primarily professional sports.

- Sport is a field in which the EU's responsibilities having only been acquired with the entry into force of the Treaty of Lisbon in December 2009. Article 6(e) of the Treaty on the Functioning of the European Union (TFEU) confers on the EU the competence to carry out actions to support or supplement the actions of the Member States in the field of sport, while Article 165(1) sets out the details of a sports policy, stating that the Union 'shall contribute to the promotion of European sporting issues, while taking account of the specific nature of sport, its structures based on voluntary activity and its social and educational function'. Article 165(2) refers to 'developing the European dimension in sport, by promoting fairness and openness in sporting competitions and cooperation between bodies responsible for sports, and by protecting the physical and moral integrity of sportsmen and sportswomen, especially the youngest.
- Sport law in domestic legal system is regulate for examples: Constitution, Sport Act, Anti-doping Act, Act of organizing mass events. Each countries of the European Union introduces regulations governing sport.
- International Sports Federations (IFs) are non-governmental organizations that are responsible for the administration of one or more sports at the world level. On a worldwide level, individual sports are regulated by the international federation (IF) that governs that sport. For example, soccer (football) is governed at the global level by FIFA (Fédération Internationale de Football Association). FIFA establishes the rules of game play as well as regulations governing players, agents, and referees. FIFA ensures compliance with its Disciplinary Code.

b. The Athlete's rights and duties.

Athletes and their interests are integral to the European Union.

- A free movement of sportspeople in UE – sportspeople can circulate freely across the EU.
- A right to be non-discrimination – non-discrimination is a general principle of EU law. One of the best known rules derived from this principle is the EU prohibition against nationality discrimination
- Image rights – image rights are considered to include the rights connected to one's own picture, name, reputation, signature and other personal identity subjects such as charisma.
- A right to take part in competitions – entitled to participate in competition after meeting the requirements.
- A right to change a sport club.
- A right to cure an injury.
- A right to get a salary.
- The obligation to comply with regulations related to sports competition, including the principles of fair play.
- The obligation to cooperate with the training staff.
- The protection of mental and physical health – an obligation to lead a healthy life style.
- The obligation to avoid extreme sports.

- The obligation to participate in training camps, camps and matches.
- The duty to care for the good name of the club and sponsors.
- The obligation to insure an athlete.
- Non-competition
- Ban on betting operators

c. Athlete's personal rights

Personal rights include health, freedom, the right to worship, freedom of conscience, a good name or pseudonym, private, confidentiality of correspondence and immunity of residence. Violation of property or values protected by civil law gives rise to compensatory liability, among other things. Currently, the most frequent violations involve, freedom of speech, private, defamation, with individuals' character often impugned by the media or in connection with public appearances. Importantly, both private individuals and public figures may seek protection of their personal rights.

2. THE SPORTS AGREEMENT (GENERALLY).

Contracts in sports are no different than contracts in everyday life. Professional athletes are compensated for their services with a paycheck just as anyone else. A contract is a legally binding agreement. There six elements that are necessary to a binding and enforceable contract:

- An agreement;
- Between competent parties;
- Based upon the genuine assent of the parties;
- Supported by consideration,
- Made for a lawful objective;
- In the form required by law.

Before signing the contract athlete's should check it (10th the most important things):

- Who is competent to sign contract (president of club, board of directors, club owner)?
- Deadline for contract.
- How terminate the contract?
- What happens if one party breaches a contract?
- Which level of league will athlete play?
- Does club insure athlete?
- Amount of remuneration – salary.
- How many times athlete has a trainings, matches on week?
- Contractual penalties.
- Initial paragraph all pages of contract and sign last page.

a. Types of agreement conclude with athlete:

- a sport employment contract – contracts in sports are subject to the same principles of contract formation as any other form of em-

ployment agreement. Contract of employment is a kind of contract used in labour law to attribute rights and responsibilities between parties to a bargain. The contract is between an „employee” – club and an „employer” – athlete. More specifically an employment contract can include: salary, schedule (contract will include the days and hours an employee is expected to work), duration of employment, general responsibilities (duties), confidentiality, benefits, future competition.

- a civil agreement sports contract – a civil agreement is a legal agreement between two parties used in civil law. Civil law contracts are different legal forms from a contract of employment on whose basis work can be performed, and they are governed by the provisions of the Civil Code.
- Civil law contracts are commonly used when the employer does not plan to employ a worker under an employment contract, but requires the performance of certain activities or for some specified work to be completed. The parties freely determine elements of the contract.
- a sponsorship contract – regulates the legal relationship between a sponsor and the individual such as an athlete or player, a sports team for an event that attracts sponsorship or the owner of a location that will be sponsored. A principal sponsorship agreement usually means that the company or sponsor's name and/or logo will be placed on the front of the team's shirts.

b. a negotiatie agreement – techniques and tactics of negotiation. Negotiation describes any communication process between individuals that is intended to reach a compromise or agreement to the satisfaction of both parties. They stress that the point of negotiating is to reach agreement. General principle in business as in life, you don't get what you deserve, you get what you negotiate.

- The elements of negotiation : a subject of negotiation, the target, the strategy a good plan, a good offer.
- Techniques of negotiation: prepare a plan of negotiation, choice the tactics, enter into negotiation, reach the target.
- The negotiation tactics for example: the better offer, the high ball, the cards on the table
- The better offer tactic – When the other person makes an offer, say that you have already received a better offer from somebody else. If they ask what that offer is, then you may or may not choose to tell them. If you do, then you have the opportunity to set a limit that the other person knows that they cannot exceed.
- The high/low ball tactic – The "highball/low ball" tactic occurs when one party in the negotiation makes an extreme demand or offer that is either too high or too low. This negotiator is looking for an emotional reaction from the other party. The emotional reaction will let him or her know how informed the other party is about the value of the objective in question. If the other party seems to sincerely consider the offer, the first negotiator knows the other

party is not aware that the offer is not reasonable. If the other party seems offended, the negotiator knows that the demand or offer will need to be adjusted because the other party knows the accurate value.

- The cards on the table tactic – a negotiation tactic demonstrates trust by telling all.

3. THE OBLIGATION – A LEGAL DUTY TO PERFORM OR TO NOT PERFORM SOME ACTION. A BINDING, FORMAL ARRANGEMENT OR AN AGREEMENT TO A LIABILITY TO PAY A SPECIFIED AMOUNT OR TO DO A CERTAIN THING FOR A PERSON OR GROUP OF PERSONS.

- a.** an obligation between an athlete – a sports club
 - The club representation in the country and international sports competitions, as well as participation in events and meetings promoting the club,
 - The take a part activity in the training process and competition;
 - The enforced medical check-ups;
 - The use of medicines prescription only by club's doctor;
 - A compliance with sports regulations and sports rules;
 - The lead a healthy life style;
 - A material liability for sports equipment;
 - Dont take any actions that could expose the club or sponsors to get a loss of reputation.
- an obligation between a sports club – an athlete
 - A salary payment;
 - The payment of remuneration for an injury;
 - The creating conditions for improving sports qualifications;
 - The insure an athlete;
 - The release a player for the national team's matches;
 - A Bonus for sports results;
 - The payment for accommodation;
 - Have a professional physiotherapist and doctor.

THE BIBLIOGRAPHY:

1. Parris R., Sports law and policy in the European Union, Manchester University Press, 2003.
2. Barnett K., Sports agents and professional athletes: the legal relationships surrounding professional sports, 2005.
3. Toivonem L., Athletes in the European Union – Towards Improved Protection of Image Rights, Faculty of Law Lund University, 2018.
4. Krześniak E., Sport law in Poland, Kluwer Law International, 2018.



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