Methodological Approaches to the Training System Management forYoung Qualified Athletes

G. N. Germanov [a] I. P. Carp [b], Yu. A. Kuptsov [c]

[a] *Moscow Teacher Training University, Moscow*
[b, c] *State University of Physical Education and Sport, Chisinau, Republic of Moldova*

Abstract

The interest in the methodology of the management of the long-range training system for young and qualified athletes is believed to be a fairly old established issue. The great number of terms, concepts, and definitions striped of any specific content do not allow us to make out clearly the principal directions leading to solving this topical problem.

By now we have arrived at the necessity to lay down a number of general scientific approaches that are to develop and to extend our primary perceptions, such as package, meta-object, target-oriented, system, structured, functional, and technological approaches.

Keywords: athletic training & preparation, management system, package approach, meta-object approach, target-oriented approach, system approach, structured approach, functional approach, technological approach

The present-day sports is remarkable for its urge to improve the management systems for training & coaching the sports people at various levels of expertise, to develop and proficiently use managerial functions and capacities on the basis of forecasting, modelling, planning and control activities.

In this context, functional elements of the management system can be obviously recognized as effective, producing and successful when they rely on the teamwork of coach, athletes and many other experts [3,4,9]. The advanced approaches and methods of analysis open a potential for applying **the package approach** in management, since the coach has a lot of duties and functions as instructor, teacher, motivator, social worker, friend, student, manager or administrator who is always in contact with the media and public (PR).

Careful fulfillment all of these duties, the diverse and efficient cooperation with the scientific groups, the objective of which is to conduct ongoing studies and researches would provide an opportunity to assign brand-new tasks and to set to their solving.

So far the essential practical and theoretical efforts are taken towards multi-purpose activity, which is “over-subject" or "meta-activity" – derived from “meta” ("beyond”, "through", "over", "after"), – universal, overall, integrating property, quality, action, –**META …** [<Greek. meta], designating: 1) following in something, transition to anything else, change of condition, transformation, 2) super-updating, new-innovation; 3) in the science of logic: relating to the systems which describe other systems. The key categories of the methodological approach are the concepts, such as meta-activity, a meta-subject, meta-knowledge, meta-ability, a meta-means and others.

The meta-subject approach appears to be a general scientific method of knowing processes of the real, as a single way to promote the integrative understanding of the individual patterns, and to unite selective recommendations into meta-knowledge of the athletic performance; it is considered as a new research area of great importance for the further development of the scientific fundamentals of the sports training theory.

The meta-subject approach in multi-year training is based on philosophical categories of "general", "individual" and "specific", which play a critical methodological role in the process of knowledge of the real.

Based on this general scientific approach we interpreted in a different way the types, kinds and variants of, for example, physical endurance, and described the integration and unity of the general and specific things in preparation [3] of the athletes.

The following methodological provisions may be taken as a basis for meta-subject perception of the sports training processes:

1) first-priority recognition of the objective laws and regular patterns of competitive activity, extrapolation of the meta-factors of a successful competitive antagonism from complementary sciences;

2) unity of pedagogical, medical and biologic principles in athletic training, identification of regularities with regard to the adaptation of an organism to the training activity, analysis of the meta-factors supporting the progress;

3) The sportive meta-activity provides for the theoretical modelling of the athletic preparation processes, the use of immediate information media with biological feedback as an artificially controlled environment.

4) The implementation of the meta-activity is based on forecasting and programming of the training activity, use of retro regularities of becoming the sportsmanship and formation of a potential athlete’s models.

5) The sportive meta-activity is focused on accuracy, degree of detail, effectiveness and unification of different aspects of the fitness in an integral whole.

6) The meta-subject approach in the sporting activity maintains the balanced vision in relation to the on-going adjustments in the preparation of athletes and allows for their integration in the long-term goals of the training.

7) The sportive meta-activity provides for the unity of general and individual properties with regard to substantiation and checking of various educational technologies. Moreover, it is important to lay emphasis upon the athlete's development in the course of the multi-year coaching work, and then upon the performance of all the trainer's duties that make him more successful [10].

It should be admitted that the competitive activity is still a generalizing goal for taking managerial decisions. Therefore **the program & goal-oriented approach** to the management of athletic training has been yet recognized as one of the main methods. It opens the potential for setting the long-range objectives of training juvenile and young athletes, for forecasting the parametres of record-breaking competitive activity, extrapolation of the sportive performance of the adult athletes onto the appropriate rating of the young athletes' results.

The latter requires justification and experimental validation of educational technologies of high efficiency with due account for new data about the kinetic potential of children, teenagers and youth, and the characteristics of their psychosomatic and morphofunctional development.

The second action is the development of model characteristics for fitness and qualification of an athlete, which would meet the expected sports performance. This requires accomplishing specific tasks, such as determination of the athlete fitness dynamics, his strengths and weaknesses.

The third action, being the most important within the management system, includes achievement of the model characteristics by the sportsmen and their comparison to the results of competitive activity at a specific time.

Therefore the problem of planning and standardizing of training loads arises, their effective structure, the balance of basic components of the training, choice of the most efficient tools and methods of training, which would allow a sportsman to be transferred from one functional condition into the preset future condition.

The training of a sportsman, if considered within the scope of **the systemic approach**, is:

1) a system possessing a goal-oriented capacity, where the management at any level is focused on achievement of the highest results complying with the criteria of growth of the sportsmanship in certain age-specific periods. One of the critical conditions is identification of constant age limits for achievement of the sports performance. So, if the core requirements at the stage of initial preparation are all-round training, compliance with the standards of physical and technical fitness, mastering of specific parametres of the training loads, then the sportive performance and effectiveness become a foundation at the stages of sportive specialization (training stage), improvement of sportsmanship and the higher sporting skills.

It is found that, if the age of 11-12 years is assumed as the period of completion of the initial training, the mass athletic degrees and titles are achieved after a year of the specialized training in the majority of speed-power, cyclic, competitive, and opponent sports, as well as in single combat sport. At the age of 15 years our sportsmen shall become first-class athletes, at the age of 17 years – Candidate Master of Sports, of 19-20 years – Master of Sports, of 23-25 years – International Master of Sports. The age of 25-28 years is regarded as the age of the highest sportive achievements; however, over the recent years, the tendency for extension the age limits of winners and prize-winners of the international competitions is observed. This is said to be connected with professionalization and commercialization of sports.

2) a dynamic developing system, which allows for implementation of both long-term strategic goals and on-going objectives of a transitional nature. Thus, for example, a number of scientists [9] speak in favour of the individual personified development of the long-term and intermediate objectives for the sportive improvement, and only after that one should select the coaching actions and measures, which must be adequate to the level of achievement of the objectives. According to the asserted concept, first of all the program of each next annual training cycle shall be subject to the individually focused adaptation in the course of multi-year training of a sportsman

3) a system, the management of which is based on the objective laws and regularities of formation of the highest sportsmanship in the course of multi-year training, on compliance with the principles of maximizing the goals achievement, specialization, continuity of the training process, progressing dynamics and waviness of training loads, periodicity, cyclicity and fairness. An "activity spiral" occurs in the multiannual educational & training process: goal setting – selection of tools – goal achievement – correction of achievements based on the information available and new planning of a higher goal.

One of the basic principles in preparation of sporting reserve is commitment of the training system for young sportsmen to the higher sportsmanship [5], forward-looking progress of technical training in fundamentals of the training activity, functional growth and adaptation of the organism's systems in the

conditions of special-purpose training, elevation to a completely different level of unity of general and specific items in training process for young athletes [3].

4) an organizational system with a multilevel hierarchical structure.

Today, a new approach to the management of the athletes training shall be the strategy of consolidated combination of efforts of federal authority, bodies of legislative and executive power, and local governments that are in charge of development of sports for children and young people and the higher performance sports.

In this regard, a scientific follow-up becomes very important when establishing a new organizational structure for the sportive backup training, which is based on cluster cooperation of the federal, regional and municipal institutions involved in developing the sports reserve, including operation of specialized centers for athletic instruction (Center of Sportive Training, Center of Olympic Training, Sports School of High Sportsmanship), the regional sportive training centers, training as a part of the national teams (of municipal formation, national sports teams of trans-regional and regional public organizations), the athletic instruction and education under the pre professional and general-developing programs at the professional educational institutions (colleges-hostels of the Olympic reserve, and the federal Olympic Reserve Academies), as well as at the general education institutions with the boarding schools of athletic specialization, and at the extended education organizations for children (centers of physical fitness and sports for children and youth, child & youth sports clubs, and any other additional education organizations focused on physical culture, sports and tourist industry).

Furthermore, there is an urgent need for working out public and municipal schemes, missions and/or assignments towards the athletic instruction of juvenile and young sportsmen, for determination of financial, material, technical and other conditions for efficient training of the sports reserve, design and implementation of regional programs for the sports development and inter-municipal programs with regard to athletic performance. An important role plays further development and improvement of Federal Standards for Sports-wise Training (the standards of professional education for trainers, coaches, and athletes) and the programs based on them.

5) a system, in which functional elements are closely interconnected and recognized as effective, productive and successful. The priority in developing **the structural and functional** organization of the sports training belongs to L.P. Matveev [4], the great theorist and expert of modern times. According to his views, the scheme of sports training is someway or another connected with the recognition of a three leveled-structure:

1) a microstructure level is the structure of a single training activity (session) and minor cycles (microcycles) consisting of several sessions;

2) a meso-structure level is the structure of the training medium cycles (mesocycles), which includes a relatively completed row of microcycles;

3) a macrostructure level is the structure of the enhanced training cycles (macrocycles), such as semi-annual, annual and multiannual.

Until recently, it was generally thought that a basis for the sports training is the level of microstructure represented by a single training activity or by a set of sessions, and designated as a microcycle for the sports training. At the same time, a great number of physical actions, various on their structure and responses, is carried out within the framework of an individual training activity. They sometimes not only fail to be arranged in the logical (natural) sequence of cumulative increase of the training load, but also create a negative summation of the effects.

That is why many researchers discriminate "a training (kinetic) assignment" and appropriate complexing as a basis for microstructure of the young sportsmen training, and their combination would ensure an effective composition of a single training lesson [1, 2].

The physical (kinetic) assignment shall be considered an initial structural and functional unit of the physical activity, the executive form of the motional action with the preset conditions of performance defining the target level of functioning of the responsible physiological systems (Fig. 1).

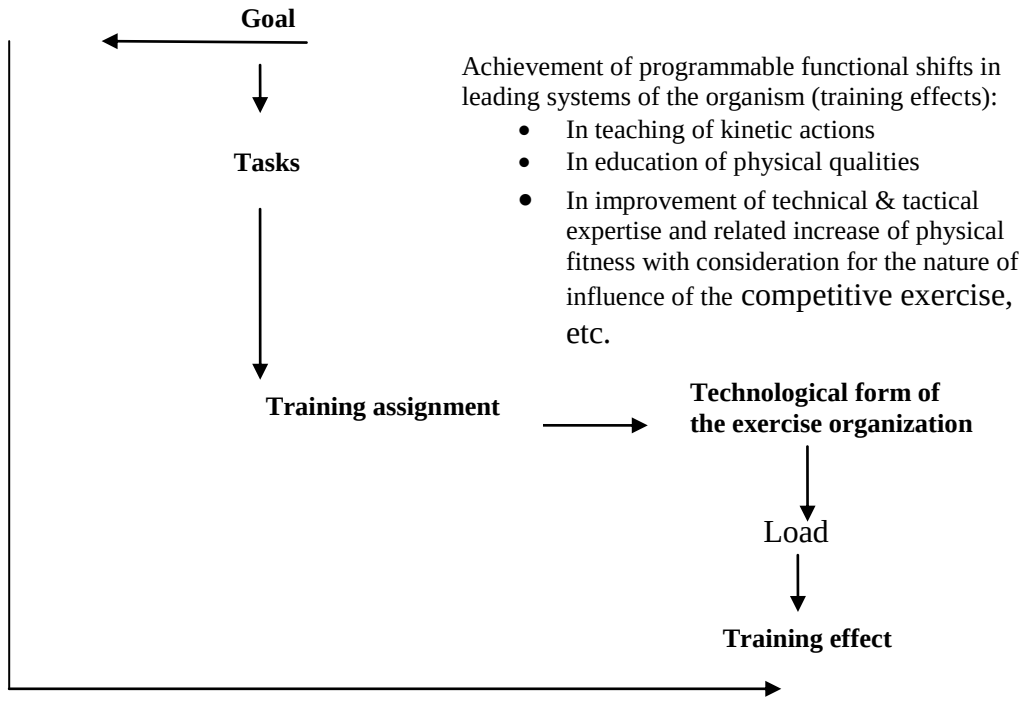

Fig. 1. Structure of a training assignment (reported by G.N. Germanov, 2011 [1, 2])

A kinetic functional request forms the basis for the physical assignment, where the quantitatively characterized operative task (goal) is reached as a result of an exact combination of the influencing factors, such as duration, intensity of exercises, number of repetitions, and recovery intervals requiring a strict regulation of load for the set goal achievement. Only in such a "super-pinpoint" variant – "kinetic assignment" – the expected effect from influence of the verified loading factors on functional systems of an athlete's organism can be reached.

Consequently, a realistic and explicit expression of the anticipated goal, including calculated & parametrical one, is practicable only in operational and instant form, and, first of all, in the represented kinetic assignments, which are arranged with consideration for succession and continuity of the timed training effects, and, at the same time, are subject to the goals and tasks of the staging and long-term training of the athletes.

Therefore, the technology of formation of athletic training can be perfectly presented as a dynamic process of structuring of the primary elements – *kinetic assignments* – into larger fragments and components of the sportive educational process: parts of the training session, modules, blocks, clusters, system of trainings, warm-up cycles, etc.

Considering the new approaches to the organization of physical activity in the sportive training of young and qualified athletes, we assume *kinetic assignments* as the design fundamental for the whole process, as a primary functional unit in arrangement of the motional activity included in structural components of larger training units, we point to the primary elements in the structure of training and microcycles – an individual assignment, a block of assignments, a linear set of blocks and/or modules of assignments.

With this statement we introduce an innovative methodological approach to the formation of athletic training, named **"technological approach"** in the theory of sports**,** for which the category of "task" becomes a basic concept (task-based learning and teaching, TBLT).

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Analysis of the Development of Coordination Capacities in 8-10-Year-Old Pupils from Taekwondo WTF at Early Stages

Grosu Vasile A.[a]

[a] *State University of Physical Education and Sport, Chisinau, Republic of Moldova*

Abstract

The research has focused on the importance of coordination capacities in the training of athletes aged 8-10 years at the beginning of training. Using comparative analysis and processing of mathematical and statistical data, the level of development of coordination capacities of pupils from taekwondo WTF was established.
Keywords: students, coordination capacities, sport training, exercises, testing, taekwondo WTF

Introductions.

Literally translated, the Korean word, "tae", means "to kick" or "squash with the foot"; "kwon" implies "a hand or fist to block, punch, strike, or destroy"; "do" denotes an "art" or a "way". Thus, "tae kwon do", means "the art of kicking, blocking and punching" [3 p. 8].

Physical preparation is one of the most important factors of training to be considered infallibly in order to upgrade a competition performance to a high standard. The primary purpose of physical preparation is to increase a player's functional potentiality and to develop his biomotor abilities to a high standard [6 p. 704].

Currently, in the specialty literature there has not been a consensus concerning the definition and components of coordination [1, 5]. Thus, Alexe [1 p. 360] defines it as being "the ability to quickly and accurately select and execute drive actions appropriate to unforeseen situations, with a high efficiency".

The importance of coordination abilities has gained an increased percentage in the training process, together with extension of early training of youths in different sport branches, constituting a priority object from the first stage of training [4 p. 353].

The coordination is on the basis of each drive task or better to say on each movement of execution. In order to perform a simple or more complicated movement, a lower or higher degree of coordination is required. This represents also „*a form of complex (physical-psychic) expression of performance capacity through which the athlete learns more quickly the technical elements of the respective sport discipline and adapts more quickly in certain situations and moments of the execution of the respective movement*" [7 p. 141].

The performance ability is determined mostly by psychomotor capacities, as a result of the quality of the central nervous system.