REPUBLIKA E SHQIPËRISË
UNIVERSITETI I SPORTEVE TË TIRANËS
FAKULTETI I SHKENCVE TË LËVIZJES
-DEPARTAMENTI I SPORTEVE-

Summary of the dissertation

COMPLEX TRAINING METHODOLOGY INCREASES THE STANDARDS OF TRAINING IN AMATEUR ADULT BOXING

(Study presented for the protection of scientific degree "Doctor" in Sports Science)

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Tirana, 2015

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SUMMARY:

COMPLEX TRAINING METHODOLOGY INCREASES THE STANDARDS OF TRAINING IN AMATEUR ADULT BOXING

I would feel satisfied, and happy as well, if this study will considerably contribute to the training of amateur boxing ,in our country, this sport discipline in which I spent the most beautiful years of my youth and my manhood !!

Sead Bushati

Tirana, 2015

Content of the dissertation

Introduction to the study

"The champion is the person who gets up when he can't".

Jack DEMPSEY

Introduction

Amateur boxing as a vanguard of sports in our country has grown and consolidated over a sterling experienced, born and developed among the many sacrifices and hardships. As a genuine specialist in this sports discipline, I think this valuable experience should be acquired, processed and taken further, to the qualitative growth of the sport in the future.
The study presented is included in the group of complex scientific studies. It focuses on modelling and standardization of training methodology with original value, which would create the necessary space and opportunities for development in order to accelerate the training indicators and sports achievements.

A special area in this study is occupied by the one-year experimental activity of adult boxers' team K.S. 'Tirana which was announced after several years 'national champion' in 2004. Among the group of these sportsmen, were announced champions and medallist in international activities, who have raised the colours of the national flag, boxers, such as: Jurgen Uldedaj, Mauro Cani, Esild Kalemi, Anxhelo Merkohasanaj, Alban Beqiri, Alban Bermeta, Aleksander Rama, Indrit Laci, Denis Nurja etc.

The entire study material is presented in a plain, clear and concrete language in about 185 computer pages and 7 chapters illustrated with 37 charts and 48 original tables.

♦Aim of the study

The ratings and modelling of complex training process according to special preparatory cycles, with the aim of qualitative development of training in accordance with the physical and psychological demands which submit amateur boxing of adults.

♦Hypothesis of the study

In order to solve objectively prognosis and expectations of the achievements of this study, some specific hypotheses were imposed for solution, hypotheses which will enable the evaluation of breakeven and experienced training process:

Firstly; The complex training with a specific dynamic character, regulated and free of excessive load, increases the functional and physical - motor standards of amateur boxer.

Secondly; Training with an interval character, emphasized content toward special sustainability indicators and with different physical-motor and functional elements,

accelerates the period of training and has obvious superiority over other forms of training with traditional character;

Thirdly; Supporting the training process in macro cycle training structures is the most rational way of controlled development of training loads in relation to the regeneration, which prepares and adjusts gradually and completely the boxer, to the relevant indicators of training and sports form.

♦ Formulation of this dissertation was based on a wide and diverse scientific methodology, in which we highlight:

- ***Processing of contemporary experience***; being analyzed over 42 sources of foreign literature by authors outside and inside the country, specialists in sports and amateur boxing, as: Verhochanski JV, Matvejev L,Weineck Tchen, Vollkov VM, Fracasso C, Kiseilov VA, Ceremicinov VN, Reka R. Heqimi Ll, Jorgoni A, Dibra F. etj;

-Experimentation; an original training methodology was experienced, based on macro cycle , with adult amateur boxers K.S. "Tirana", within a year (January. 6th, 2014 until December 31st, 2014), in which participated: Mauro Cani, 56 kg, Esild Kaemi, 60 kg, Anxhelo Merkohasanaj, 64 kg., Denis Nuria, 69 kg, Alban Beqiri, 75 kg, Alban Bermeta, 81 kg, Aleksander Ramo, 91 kg,, Indrit Laçi, 91 + kg, Jurgen Uldedaj, 81 kg (Youth) etc.

In this study, are found its own goals, tasks and objectives in the field of amateur boxing, with the latter focusing on the major directions and content of the process of experimentation

The first chapter:

Amateur boxing in the framework of contemporary modern development

♦ The first chapter is summarized in 10 pages, 2 tables and 4 special scheme. The study has a familiar character to amateur boxing, as a genuine scientific discipline of sport, which is classified in the group of "heavy sport". In this duel fight discipline, a high complex preparation is highlighted, especially in the strength and special sustainability indicators. Physical-motor activity is characterized by the prevalence of anaerobic process to aerobic one, in this ratio: alactic anaerobic process, 10%, lactic anaerobic process, 60% and aerobic process, 30%.

♦ The training methodology in modern amateur boxing functions on the ground of ***a sports training system***, which is a scientific document with theoretical and practical value, in which is reflected the overall training activities of the boxer, conditions, tools and directions of preparation. This system is applied correctly when specific features and the requirements for high achievements in amateur boxing are well known. (Reflected in the study).

The second chapter:

The Process of sports training in amateur boxing

♦ The second chapter is summarized in 10 pages and 3 special scheme. New ideas on sports training process of amateur boxing in training fields and types of training preparation are reflected. Training, in this part of the study appears like a special level of preparation of the boxer, demonstrated through a complex physical, operational, and coordination indicators, which enable the achievement of the desired sports outcome.

♦ The training of the boxer is organised on a modern training methodology, including classical and specific training methods and training tools preceded by special principles such as: scientific development, deepening specialization, creative development of training, etc. All the activity is concentrated on optimal preparation of different kinds of training, general, special and specific, in required relation and modalities of boxing discipline and training period. (F.P Suslov,. Shustin B.N, 1995),;

The third chapter

Typical physiological phenomena during implementation download training in amateur boxing.

♦ The third chapter is summarized in 20 pages, 11 tables and 6 specific schemes. It shows that amateur boxing is organized through a hard physical-functional activity that works based on energetic mechanisms with an anaerobic, aerobic and mixed character. These mechanisms operate in indoor environments and in fixed period, creating biochemical and functional changes, from whose performance is related to the development of functional and physical-motor skills (see the study).

♦ A special role in this chapter plays super compensation, as a biological and physiological process, in which the quantitative changes turn into qualitative ones, increasing the training indicators, as a result of delayed effects. *(Matvejev-i, 1962).*
The effects of super compensation are closely related to the specific functioning of structural elements, which lead to qualitative achievement as: disorder, deployment, adoption, promotion, climax, preservation. Achievement of a new quality is realised within 2.5-3 systematic training months. *(Dibra F. 2013)*

♦ Organization of training loads primary takes place in this chapter because super compensation process is closely related to their implementation.
Training loads represents *a studied amount of incentives exercise, enabling positive changes to increase physical functional indicators and coordinated as well, in the future".* (Dibra F, 2012).

The training loads work is based on the coordinating of the outside and inside loads. The outside load is valued upon the size of the structural elements (volume, intensity, duration), whereas the inside load is valued upon the size of inside impact of the structural elements of the load. The training load is better valued upon its size, classified into: large, medium and small load. The main evaluation criterion is the "coefficient of load", by volume of load. (See the study)

♦ Types of loads and their distribution are closely related to the renewable and preserving criteria of training continuation, based on the principal that: After large loads, a long break (60-72 hours) and the renewable small loads vice-verca. (Dibra F, 2007).

The fourth chapter:
Formation of the boxer during the training process

♦ The fourth chapter is summarized in 30 pages, 5 tables and 10 special schemes. It discusses the formation of the boxer with necessary training indicators, in which a special role plays ***the motor skills***, as certain trends *that constrain and enable motor activity and its specific dynamics in the sport activity.*
Motor skills are different beginning from:

- *Sensoperceptive skills*; enabling connections with the external environment and internal through the central and peripheral nervous system;
- *Conditional skills*; conditioning the motor action in the form and its dynamics;
- *Coordination skills and motor properties*, which coordinate motor actions

♦ Another important issue of this chapter is the activity of motor skills ability, strength, speed and endurance, which produce movement in all their regimes, space and their dynamics. These skills are closely related to each other, feeling more the strength factor, without which it cannot develop even the simplest movement. Their development is related to the impact of real factors of genetic and training character, in which primary impact is given by sensoperceptive skills, muscle mass, muscle fiber activation; muscle fiber type, the level of VO2 max, psychological preparation, energetic reserves, etc.

♦ Physical abilities in terms of developing the race are implemented with different constraints: with the maximum strain, with quick and explosive strain, with small strain, but long ones. In all these cases all physical abilities are demonstrated. The most important one is the maximum strength, providing irrefutable impact on the size of strain, implemented in the appropriate regimes of physical-motor activity.

♦ Physical abilities are developed in two forms, in their generic and special aspect, in which the main element is exercise. The generic form is exercised with other sports activities; the special form is realised through similar exercises and similar to the conditions of the race such as: plyometric, pyramid and contrast (for the strength) method, iterative method (for speed), extended and interval method (for developing of general and special sustainability).

♦ An important issue in this chapter is versatility, known as a skill combined with flexibility and coordination skills. These abilities depend on the plastic of muscle fibres, joints and the coordination of activities in space and in time.

The fifth chapter:

Basics of planning and training periodicity in amateur boxing sport

♦ The fifth chapter is summarized in 7 pages, 1 table and 9 specific schemes. In this part of the study are emphasized modern ideas and concepts on the highest standards of sporting form, which is realised through the periodically cyclic training structures, planned correctly. Sporting form is a physical – functional phenomenon, which is established at certain stages (initial, orientation, perfection and conservation) and each macro cycle predicts its sporting form.

♦ In modern training activities, planning, periodicity and programming of training act as a solid unity. They depend on several factors, where super compensation is very important because it predicts the proper duration for quantitative and qualitative changes in training. (Basetta P, 1997). Scheme 24.

♦ Periodicity of the exercise is contemplated and evaluated as a specific process on which training is planned. It operates on a set of training plans, starting from the plan of training unit, the training session, day training, micro cycle training, mid cycle training, stage and period of training, macro cycle training, year and stage of training.

♦ The planning process finds active concretization in macro cycle training structures, in the content of the annual plan, 2-4 in training.
Each macro cycle functions as a training, on the basis of these training steps, with particular goals, such as: introductory stages, general preparation stage, special preparation stage, the first stage of the race, the second stage of the race and the transition stage. These stages operate inside the preparatory period, the period of the race and the transitional one.

♦ At every training stage of the modern training process, the gradation of intensity are alternated, from the highest to the lowest and vice versa, having as principle: that during the preparatory period, the part of the total volume is dominated, with lower intensity, while its smallest part is occupied by the high-intensity work.

The sixth chapter:

Programming and implementation of the training process in modern amateur boxing

♦The sixth chapter is summarized in 55 pages, 22 tables and 1 special scheme. In this part of the study, the programming of the training process is one of the most important parts, which reflects the experimental activity with the team training champion SK "Tirana".
Training process is established on this macro cycle training:

▪ *Adaptive macro cycle (42 training days*), which is concentrated on the establishment of the previous training day of the boxer, after the transitional period of the previous year;
▪ *Developing macro cycle (86 training days),* which is concentrated on the consolidation of training indicators.

▪*Amplifier macro cycle (132 training days);* that is focused on the consolidation of training indicators.
▪ *Optimizer macro cycle (63 training days);* that is focused on perfecting and maintaining training indicators.

♦Determination and order of the amount of training tasks in micro cycle and macro cycle training is regarded as a factor that regulates the norms and sports training program, in which are we are based on a simple mathematical but meaningful process, "trio rule", that converts percentage into tasks amount (units) under certain goals: general, special, specific preparation, in each stage of every macro cycle. (See the study)

♦ Training units have undergone a specific modelling, in duration and content, for the strength, speed, coordination, etc. In each training stage, according to the appropriate micro cycle, the training tasks are distributed according to the training units, introductory stage 12 tasks, generic and special preparatory stage, 15 tasks, match stage, 14 tasks, stage near the match, 8 to 10 tasks, transitional stage, 7 to 9 tasks. The training load aims to be: big, the first and fifth day, regenerating one, the fourth day, the mid one, the second day, etc. (See the study)

The seventh chapter
Results of the study and their discussion

♦The seventh chapter is summarized in 15 pages, 11 tables and 6 special schemes. This chapter highlights the practical values of the annual experimentation of the complex training methodology, implemented in boxing team SK "Tirana" for 2014. This original methodology enabled the realization of major objectives and content, training goals and tasks within deadlines.

♦ It is worth mentioning development in physical, technical and functional indicators, in which it is marked an average increase of 8.1%. In the special test with 12 exercises, was marked a rise of 14.9% (8.44% on the amount of repetitions 2.26% in the throb of the load and to 4.20% in the throb after a minute). Drop-jump test marked a 7.55% increase. Singel test 2 Leg Jump (with assistance) in 6.54% (FFI, at 5.96%, Jump Height, 7.55% and Eficienca at 12.6%). Jump Singel leg test (without assistance): 6.17% (where F.Mes, Rel, at 7.69%, F.Mes.Rel / weight, 9.73% and A. Kontakt time at 1.09%).

♦ Analyzing the data of the table above, it is noted that the whole team of boxers has made progress in physical, functional and coordination area. This is the largest increase in the indicator of withdrawal in iron and in RSA and the smallest one in the segment of 30 m, where the increase is more difficult. However, in the future, it is necessary that high jump indicators be improved and VO2 max, from 253 cm to 270 cm and from 45 to 55 mil / kg / weight, as indicators that increase the power and aerobic capacity, for loads with higher level into the future.

Innovations of the study

At the conclusion of this study, it is natural to become acquainted with some innovative ideas that it brings to the qualitative improvement of the training process in amateur boxing, where we highlight:

● Creating a training methodology with original value, with complex characteristics and released from overloading, with effects for new achievements and focused in the anaerobic area, 10%, in the anaerobic lactic area, 60% and aerobic one, 30%;

● The scope and sequence of study is realised in regard to a certain order and cognitive, developing, formative problems, associated with an original arsenal of tools in 48 tables and 37 special scheme, arise.

●Interpretation and original evaluation of super compensation stages and the calculation of the deadlines of this biological, physical and functional process in accordance with specific preparation for the formation of a boxer and objective planning of sports training.

● Division, determination and assessment of the size of the load according to the respective types, through "assessment load coefficients", in accordance with the volume and intensity, as well as their distribution in training macro cycle by size and regeneration criteria

●Interpretation and arguing treatment of special sustainability, valuing the special sustainability indicators through the test with "12 exercises" that assesses the amount of repetition, pulse load changes and during 1 minute break;

● Planning and construction of the training process on the basis of macro cycle, divided in an original way in different stages, (adding to annual cycle incoming stages and especially special preparation stage), provide the passing of the boxer with full capacity in competitions period;

● Sport physical form is considered as a physical and physiological phenomenon, which is built for each training macro cycle and not once during the annual cycle, as it is claimed so far;

● Decoding for the first time the preparation reports, from percentage into the amount of training tasks, which provides distribution of training tasks and rational formation of a boxer with different types of training;

●Training activities with all kinds of intensity, estimating that in the preparatory period, the most part of the volume be prepared with a low and medium intensity, while the other part of the volume be prepared with high and medium intensity, while the rest in low intensity, etc.

● Different parts of this study are referred to and published abroad in Greece, Austria and Italy, being evaluated as materials that bring new innovations to the field of boxing. Such

published materials are written in relation to the loads and their assessing on special sustainability and respective tests, on modelling the training process etc.

Conclusion of the study

At the end of this dissertation "Complex training methodology increases the standards of training in amateur adult boxing , we draw out these conclusions:

First; experimental training process tested theoretical and practical values of a new training methodology in the field of amateur boxing with specific and complex features feasible and necessary for high achievement. Through it, appropriate opportunities and conditions for the implementation of the relevant goals and objectives were achieved, focusing on a variety of individual and team achievements. S.K. "Tirana", which was declared champion in boxing team for 2014 and almost the entire team was represented in international activities such as: the talented boxers, J. Uldedaj, A.Beqiri A. Berrmeta A. Rama I. Qalam A. Merkohasanaj M. Canaj etc. .

Second; the training methodology presented in this study is an original, applicative and rational activity released from the useless loads which really wear the boxer out, making the achievements of special and specific training indicators more difficult.
In this way, the first hypothesis of the study is applied, where the complex training with a dynamic specific character, released from the excessive loads, increases the functional and physical-motor standards of amateur boxer.

Third; The training process of amateur boxer should be organised in accordance with the requirements of the match, where the anaerobic energetic process dominates the aerobic one (alactic anaerobic process, 10%, glycolitic lactic anaerobic process, 60 %, aerobic process, 30 %) .

In these conditions, during the training process, loads with anaerobic physiological characters should be used as they represents special requirements against special sustainability indicators as physical skills, the base for the boxer and his physical- motor activity with intervals, in which the interval and alternative methods are implemented.

In this case the second hypothesis of the study is implemented, where the training has an interval character, with an emphasized content against the special sustainability indicators and with different physical-motor and functional element, accelerates the training periods and has a great impact on the other forms of training, with a traditional character.

Fourth; The training activity should be based on the structure of 'training macro cycle', which give us the opportunity of distribution and implementation of controlled training loads. In the annual cycle, 3 -4 macro cycle should be realised, and the achievements are gradual according to the macro cycle. In each macro cycle, all kinds of training should be realised, in accordance with the training stages.

It is proved, thereby the third hypothesis of the study, in which the support of the training process in the structures with macro cycle training is the most rational for the controlled development of the training loads in accordance with the regeneration, which prepares gradually the boxer, toward the indicators of training and sports form.

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