Special Sustainability, Principal Factors to Increase Physical Capacity of Functional of Amateur Fighter

Sead Bushati

Marsida Bushati

Lecturer at University of Sports, Tirana (Albania)

Doi:10.5901/jesr.2015.v5n3p73

Abstract

Research reflects an aspect of experimental training process champion team SK "Tirana" Albania. It is the product of author personal experience in amateur boxing, as well the collaboration with professor Carmine Fracasso, chief –instructor at AIBA-SSI and one of the best boxing coaches, during his visit to Albania in 2013, leading a technical course for boxing coaches. And also author personal experience as a former boxer and high level specialist of boxing in Albania. Purpose - interpretation of special stability in physiological view and load modeling training for boxers preparing its high level amateur. Results- Special Sustainability: - Secondary Sustainability anaerobic-aerobic; is implemented by circle way, from 120-180 sec. With intermediate rests in 1 min. Pulse 190-200 beats / min. Unit training series 2-5, with 6-15 exercises. - Sustainability of short duration anaerobic-lactic; -with actions by 15-45 sec .Unit training with certain series 4-6 with 3-5 exercises performed nonstop, with 45-60 seconds rest. Each exercise lasts from 12-15 sec. Nature of exercise should be complex, given its content on various exercises physical, functional, psychological coordination, training unit should be developed with a complex series of up to three minutes and each intermediate vacation no less than a minute, while respecting the requirements of technical regulation of the race;

Keywords: *Sustainability, boxing, physical capacity, special sustainability, special high durability, training model, anaerobic-lactic, anaerobic-lactic*

1. Some of the Distinguishing Features of the Research

Research presented reflect one aspect of the training process with amateur boxing champion team of SK "Tirana" Albania for 2014, which were prepared prominent boxers, who are represented in the national and international activities, occupying places of honor.

The research examines a pilot process for the preparation of special sustainability ", one of the physical-functional capabilities based on the boxer training. It takes the analysis activity during macro cycle first training exercise, from 6 January to the date April 15, 2014, at the stage of preparation of the general, special preparation stage and the first stage of the competition of the month of April this year.

The research aims at training load modeling for preparation of special stability, in the framework of models, units and methodological rules specific physical and functional perspective with quality amateur boxers.

The process of preparation of special sustainability has been developed in accordance with the specific requirements of the discipline of boxing, as a tedious activity, complex and highly variable in the spatial and temporal boundaries, where fractionated actions stand out significantly. This activity is very sensitive to energy factors in terms of sports game, especially lactic anaerobic character, which take precedence over aerobic processes, which occupy 10% anaerobic processes, they lactic anaerobic, aerobic processes 60% and 30% (Steven J. Kateyan, Henry Ford 1998, Jorgoni, A. 2007).

For the country and the role that special voice in preparing sustainability boxer complex, it is estimated as one of the most important physical skills mastery determining that the boxer, which has always given the utmost importance (Kiselov VA, Cerenicinov VN, 2013).

Special sustainable development is considered as a complex process, with many factors.

It is the ability to work effectively in boxing, with features variable-speed strength, coordination and difficulty of action, implemented in domestic situations anaerobic emphasis (VN Platonov, 1986).

To develop scientific standards Special sustainability amateur boxing discipline, first of all need to know the

physiological basis on which it relies, where sports medicine specialists emphasize the determining role of lactic anaerobic energy mechanism, which conducts the process of glycolysis.

During the implementation glycolysis, only a small fraction of the energy used to deliver the ATP reshaping, while most remain in chemical bonds lactic acid. However, the total amount of energy delivered is sufficient for carrying out a significant work muscle (Kiselov VA, Cerenicinov VN, 2013).

During organized motor actions, the process of glycolysis occurs after the 8-9 seconds, and, as a rule, he begins a second after the 10-15 until the 180- th sec. This process is noted especially in sports game situations and during specific exercises intense, which prompted the production of lactic acid as a metabolic product, which causes fatigue, muscle pain even. Muscle fibers lose their elasticity, and can be damaged. Lactic acid increased gradually, reaching the highest concentration of it in the 45th sec.

Phenomena that accompany the process of glycolysis are carefully assessed during the preparation of special sustainability. The show however small of signs of exhaustion, muscle pain and overexertion has served as an important signal for correcting the training loads and establishing normality in the training process.

To develop special sustainability amateur boxing should possess knowledge on the reshaping of glycogen in the muscles fully realized. Long-term, up to 2-3 days and more (Jorgoni A, 2005 Dibra F, 2007).

Glycogen recovery and avoiding excessive presence of lactic acid in the muscles and tissue and gradually realized in different periods, which are particularly dependent on the degree of intensity and the duration of action. Within these limits, simultaneously and with the same proportions, it reduces the amount of lactic acid and added in muscle glycogen reserves, relative to the range limit:

- After 10-15 minutes; It decreases the amount of lactic acid at 25%;
- After 20-25 minutes; 50%;
- After 1-1.5 hours; the extent 60-70%;
- After 24 pm; the extent 90-100% (after load above average);
- After 48-72 hours; 100% (after big load).

As above, the process of sustainable development poses special key solution for these requirements:

- The intensity of the action (by foreign and domestic) to be at the highest level;
- The duration of the actions to be within the limits of 10-15 seconds to 3 minutes.
- The choice and adaptation of the exercises, according to game situations;
- Training Unit have complex character and consists of exercises that coincide with special and specific requirements amateur boxing.

Special Sustainability is developed mainly through the method interval. This method is considered as a training mode, where actions implemented with relatively high intensity with rest intervals specified duration of incomplete for renewal.

Interval method training has significant value for the preparation of the heart muscle. (Hector, Holman and Yakovlev).

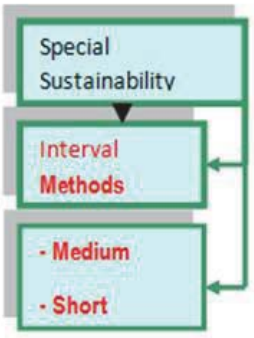
Interval method training. Method associated with intense activity and tedious, especially by functional, where the heart, lungs and kidneys face a very high load during load application, but also during the break mediator. Remember that pulse in load ranges from 190 to 200 beats / min and during the break, broker, from 140-150 beats/min. A relatively small difference between them, which provokes fatigue and physical -functional training and many hours after it.

Although a difficult, interval method, in comparison with other methods creates higher standards of physical-functional processes to develop special sustainability, but to the limits when not infringed the principles and methods of its implementation thereof. Otherwise, it becomes a factor that connect boxer injuries and overexertion that can commonly occur with young boxers, not prepared. It is for this reason that this method is applied to boxers prepared and on new subjects, which processes the removal of lactic acid are less developed.

2. Types of Special Sustainability Amateur Box

In connection with the structural element of the load, the duration of the exercise, special sustainability is prepared mainly through two main forms of its appearance, which are:

a. Special secondary sustainability;
b. Special short Sustainability. (Scheme).



Scheme: Special Sustainability in boxing (Dibra F. and Bushati S, 2014)

2.1 Special secondary sustainability

Sustainability secondary special functions mainly on the basis of lactic anaerobic mechanism and very little in it aerobic. The intensity of operations is relatively high internal loads (via blink / minute), the largest, from 190-200 beats / min duration of action in training model ranges from 90-180 sec.

During the special sustainability preparation, the process takes place with high intensity, mainly promoting lactic anaerobic processes and less those aerobic.

Physical-functional process is associated with greater fatigue because, after 45 seconds (which increases the maximum concentration of lactic acid), muscle works with high blood pressure even 2 minutes more. Load effects are significant, but also the risk for injuries, major, which should be removed owing to a strict control and evaluation training load.

Unit training for the development of high stability in amateur boxing is distinguished in comparison with other sports, for higher intensity and content more diverse and complex, with a range of models and physical-motor exercises and coordination, matched by the special and Match specific sport requirements.

As above, the unit has been training its content quite technical-tactical actions and exercises that develop schemes and elements of technique as well as the main physical skills and coordination. This unit is organized in sets (series) special, mainly through "medium interval method", implemented through stationary circular manner.

Each series is repeated by 2-4 times. It contains from 3-15 different exercises nonstop passed through intermediaries. Each one of them applies in 15-30 seconds, while the entire series for 1.5-3 minutes. Reports on the "load-break" figures range between 3: 1.5 (test with 12 exercises) and 1: 1 (in the shorter tests).

To expand the space motor, varies the training unit is often the type and manner of motor actions, but maintained unchanged its development goals in physical complex functional aspects.

So scheme replaced a technical element or another, an exercise difficult or replaced with another, creating in this way new units training, aimed again preparing special sustainability, where it includes various exercises physical skills coordination.

For sustainable development, secondary special training organized various models, which are recommended to be diverse and dynamic character, such as:

- Model-type with 12 exercises:

In this model-type, each exercise is crossed with high intensity within 15sec intervals between exercises are very active; they last 5 seconds and serve to change the station. The test method crossed through interval, circular shaped stations. The whole model is 3 min 50 sec, where real work is 3 min intense indicator that corresponds to the length of time of a round. (Tab. 1)

Table 1: Model-type trainer with 12 exercises for the development of sustainability

Secondary special

Nr	Content-type model	Time extension	Replacement the exercise	Overall amount
1	Imitation: right punches with dumbbell, weight 4 kg .. (At times)	15 sec	Every 3 sec	**18 sec**
2	Jump sideways with both feet on an object (pod) 50 cm high. (At times)	15 sec	Every 3 sec	**18 sec**
3	"Push-ups" , where the feet are placed on a 30 cm high pod. (At times)	15 sec	Every 3 sec	**18 sec**
4	Abdominals, hands-foot folding, recommend position with the spine. (At times)	15 sec	Every 3 sec	**18 sec**
5	The drive and approach at the chest of front rod shaft, weight 20 kg. (At times)	15 sec	Every 3 sec	**18 sec**
6	Rotation of the rod shaft left and right shoulder weighing 20 kg, from standing up. (At times)	15 sec	Every 3 sec	**18 sec**
7	Barbell bench press, weight 45 kg (in time)	15 sec	Every 3 sec	**18 sec**
8	Lumbar flexion and push the dumbbell behind the head, weight 4kg (At times)	15 sec	Every 3 sec	**18 sec**
9	Imitation: Uppercut punches with dumbbell in hand, weight 5kg .. (At times)	15 sec	Every 3 sec	**18 sec**
10	Somerset before with return, (At times)	15 sec	Every 3 sec	**18 sec**
11	Imitation: Hooks with dumbbells 3kg. (At times)	15 sec	Every 3 sec	**18 sec**
12	Crossing the vault event sideways (where it is the partner), (At times)	15 sec	rest	**15sec**
The total amount		**180 sec**	**33 sec**	**213 sec**

- Model-type with sets

Model-type with sets implemented three sets. In each set developed by a technical exercise shock, combined with active rest. The intensity of action is high, while reports "load break" in 1: 1. (Tab. 2)

Table 2: Model-tip sets for sustainable development

Set	Action	Time	Amount
First Set	Combinations with all the type of punches.	30 sec	**30+40=**
	Rest	40 sec	**70 sec**
Second Set	Combinations with all the type of punches	30 sec	**30+30=**
	Rest	30 sec	**60 sec**
Third Set	Combinations with all the type of punches	30 sec	**30+20=**
	Rest	20 sec	**50 sec**
Amount 3-sets	**Load-break sets**	**180 sec (3min)**	**90+90= 180 sec**

2.2 Special short Sustainability

Special short Sustainability is working primarily with actions by 15-45 sec, with high intensity. During its preparation, the process of glycols' is emphasized gradually, reaching its peak in the 45th sec. Physiological fatigue is great, but bearable easier, compared to the process of preparation of sustainability s middle, because the boxer acts for a shorter time in conditions of high concentration of lactic acid. Pulse / min. the load goes to 190 beats / minute and more.

Training model for sustainable development, the short contains various exercises and physical technical nature, be overwhelmed with high intensity, where labor relations dismissal are 1: 1. (Tab.3)

- Model-type with sets (90 sec)

This model-type lasts 90 seconds and contains 45 sec and 45 sec work active vacation

(ratio 1: 1). Exercise conducted is a special type of collision that varies from one set to another. The model applies to sets: (Tab. 3).

Table 3. Model-tip sets for sustainable development, short (90 sec)

Set	Action	Time	Amount
First Set	Combinations with all the type of punches	15 sec	15+20=
	Rest	20 sec	35 sec
Second Set	Combinations with all the type of punches	15 sec	15+15=
	Rest	15 sec	30 sec
Third set	Combinations with all the type of punches	15 sec	15+10=
	Rest	10 sec	25 sec
Amount 3-sets	Load-break sets	90 sec	45+45= 90 ec

- Model-type with sets (60 sec)

Model-type training lasts 60 seconds and contains 30 sec and 30 sec work active vacation.

The report "load-break" goes to 1: 1). Exercise carried out with a special hook, which differs from one set to another. Performing exercises intensity is very high and accompanied by a barrage of blows, which aims to disorient the opponent. (Tab.4)

Table 4. Model-tip sets for sustainable development, short (60 sec)

Set	Action	Time	Amount
First Set	Combinations with all the type of punches	15 sec	15+15=
	Rest	15 sec	30 sec
Second set	Combinations with all the type of punches	10 sec	10+10=
	Rest	10 sec	20 sec
Third Set	Combinations with all the type of punches	5 sec	5+5=
	Rest	5 sec	10sec
Amount 3-sets	Load-break sets	60 sec	30+30= 60ek

3. Content and Distribution of Training Unit

Determining the content and distribution of training units in various stages micro cycle the annual cycle was a primary requirement for the preparation of sustainability methodological special.

By analyzing the positive experiences in Europe and in our country, we arrived at some positive conclusions, which include: distribution of training during micro cycle training units in various stages macro cyclic and content of training units for the development of special stability, as follows:

3.1 General preparation stage

In this period they were implemented two training sessions a week, with intervals from each other not less than 48 hours: In the first session, the training unit contains two models:

- Type models with 12 special exercises for medium consistency: 180 + 50 = 230 sec (see table 1). The pattern is repeated 2 times with 1 minute rest intermediaries.
- Pattern-sets-type with short special sustainability: 45 + 45 = 90 sec (see table 3).

The pattern is repeated 2 times with 1 minute rest intermediaries.

From one model to another place a mediator from 6-10 minutes break for proper restoration.

In the second session, the training unit contains two models:

- model with three sets of special high stability: 90 + 90 = 180 sec (see table 2), model is repeated 2 times with 1 minute rest intermediaries. 6-8 minutes of rest until perform the next exercise.
- model with three short sets sustainability special: 30 + 30 sec (see the tab. 4). Pattern training is conducted two times, with 2-3-minute rest intermediaries.

3.2 Special preparation stage

In special preparation stage are implemented three training sessions a week for sustainable development, special, with intervals between them in 48 hours:

In the first session, the training unit includes three models:

- Type models with 12 exercises for special high stability: 180 + 50 = 230 sec (see table 1).

Model crossed 1 times. 1 minute of rest until the start of the next exercise in the other.

- Model.-type models with special sustainability sets short: 45 + 45 = 90 sec (see table). The model performed one time. Break 2 minutes to perform the exercise in another model.
- Sustainability model with short sets special 30 + 30 sec (see table 4). The pattern is repeated 1-2 times with 1-2 minutes rest intermediaries.

In the second session, the training unit contains three models.

- model with three sets of special high stability 90 + 90 = 180 sec. The model performed once. 1 minute of rest to start the next exercise (see table 2).
- model with three sets of special short consistency 45 + 45 = 90 sec. The model performed once. 1 minute of rest to start the next exercise (see table 3).
- model with three short sets sustainability special 30 + 30 sec. The model carried 2 times with 1-2 minutes of rest intermediaries (see table 4).

In The third session; training unit includes three models:

- model with 12 exercises. 1 minute of rest over to the next exercise
- model with three sets (see table 3). 6 minutes of rest.
- model with three sets (see table 4).

4. Conclusion

The process of preparation of special sustainability has given great support to increase physical capacity-functional fighter and adaptive skills, in the face of certain difficult situations of the game. These changes were evident in the results of the "model with 12 exercises", as a complex organized action, which served as a test of the original sound recording and evaluation of physical and functional performance of a boxer, especially special sustainability parameters (see table 1).

During the execution of the test with 12 exercises are based on the following key indicators:

- The total amount of repetitions for each exercise test (at times);
- Indicator blink after completion of the test (in beats / minute);
- Indicator blink after one minute from the end of the test, which reflects boxer rehabilitation skills to the next round (in beats / minute).

Assessment of physical-functional through the test "with 12 exercises" team of boxers was conducted on the basis of individual comparisons between current results and previous individual results, in early training. In this comparison, the increase in the total quantity of iterations, reducing post-test indicators blink and blink after a minute of his performance, good physical show-functional. And the more stressed these indicators, the better is the physical condition of the boxer-functional. Comparison of the average of the test data "with 12 exercises" for each team boxer for the period 6 January to 15 April 2014, revealed a significant positive changes in three main areas:

- Improved average amount of repetitions of exercises, from 228 to 249 times .. Amendment 21 times, or 9.1%;
- Improved average pulse after the load, from 190 to 186 beats / minute. Amendment 4 scramble, or 15.2%;
- Improved average blink renewed within a minute; from 145 to 139 beats / minute. Amendment 6 blows, or 3.23%.

Drawing on all the values of the indicators above, the efficiency of team champion boxers SK "Tirana" increased relative to average figures at about 14:48%, as a prominent indicator for increasing physical capacity-functional fighter and achieving the objectives desirable to increase the level of special stability and sports achievements.

References

Dick F, 1984. Training Theory
Dibra F. 2007. Athletics: Training Grounds Sports (Albanian)

Ibrahimi E. 2010 Box (Albanian);
Kiseliov VA, Cerenicinov V .N, 2013: The Bases of Physical Preparation (Russian)
Jorgoni A., 2005: Theory and Methodology of Sports Training. (Albanian)
Matvejev L, 1981. Fundamentals of Sports Training
Reka R. 2006: Box (Albanian)
Saltin B 1973. Fundamentals in Metabolic Exercise
Skender DH. 2012: Physical Preparation in Sports. (Albanian)
Tschene P., 1977: Some new aspects of periodization of the high level training (translated into French from German, RFA, pp. 379-382).
Zaciorsky V. 1995: Science and Practice of Training, HK.
Verkhoshanski Y. 1977: Bases of training (Translated into French from Russian).
EA Volkov., 1972: Sport recovery process (Translated into French by Russian, FIS).
Weineck J, 1982 from Optimal Training