

THE PERFORMANCE OPTIMIZATION IN THE DECATHLON EVENT BY MENTAL TRAINING OPERATIONALIZATION

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Abstract

The main objective of the sportive training and in the sportive performance which is considered as "the excellences aspect, optimum of the human being".

The paper emphasizes and operationalizing model of the psychic training in decathlon, by a case study, achieved in a longitudinal experiment during three years.

The operationalizing of the psychic training of the athletes during the specific training of the decathlon event, can determine the maximization of the objective contest, by adjustment and self-adjustment of the psychic states specific to the athletes and the stimulation of the motivation. The dependent variable of the sportive training is the athletes performance.

The research presents the relation between the independent variable-psychic training and performance in the training of decathlon. The motivation adjustment is experimental realized by specific techniques, based on the quantification of the expectancy level, the valence and instrumentality of the motivation on the two levels: extrinsic and intrinsic.

Key words: training, performance, decathlon.

Introduction

Athlete's performance behavior includes his ability to express, the desire to affirm him, the effort and dedication, the requirements and pressure of the social ambience. Combined events of athletics, calls on athlete on all levels: biological, physical and mental and this makes the training process, at any level, to be very complex. (L. Mihailescu, A. Serban, 2005, p 14).

Mental strength and training are nodal points in the decathlon athlete success who needs mental training off the track as much as he needs physical and technical training in the stadium. Human performance can be explained as a multiplicative factor of

Hypothesis, aim, objectives

Research hypothesis. The operationalization of the decathlon athlete mental training and the focus of its objectives to achieve the optimum motivation, can lead to the maximization of the performance in the objective competition, by adjusting and of self-adjusting the mental states of the athlete and the stimulation of motivational factors.

Research purposes. The design, operationalization and experiment of a psychological training strategy in accordance with the schedule of competitions, in order to achieve the performance planned at the objective competition, based on theoretical premises presented in the research substantiation.

Research objectives:

motivation and opportunities. / skills "(M. Bologa, 1994, p.119-125).

Mental preparation of the athlete requires "all strategies and techniques assemble used in order to increase mental capacity training and personality development of athletes according to the event/sport requirements to achieve superior outcomes and results in training and competition" (M. Epuran, I. Holdevici, F. Tonița, 2008, p. 222).

Mental preparation aims to achieve by means of sportive training and psycho - educational actions, that level of mental capacity which enables the athlete's effective work in training and superior results in competitions (M. Epuran, 1999, p. 71).

- the knowledge of the motivation structural components value (valence -V., Expectancy - E., and instrumentality - I.), by their quantification techniques in order to establish the features specific to the mental training of the decathlon athlete, case study;

- designing the mental training objectives on educational areas (cognitive, affective, psychomotor) and training factors, the operationalization of current objectives, case study

- the deepening of the mental preparation methodology of the athlete, focused on global motivational force growth (GMF) and its customizing for the decathlon event;
- the development and experiment of an intervention strategy to optimize the mental training of the decathlon athlete, in order to maximize the performance in the objective competition, case study.

Content, methodology

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The literature studied and the results of previous studies reveal that the motivational level of the athletes can be quantified by determining/objectivizing the global motivational force (GMF), reflecting: the *valence of motivation*, emotional primary dimension (attraction or rejection) and *motivation expectancy*, the subjective possibility of obtaining an outcome and motivation instrumentality (MI) with the help of *motivation valence and motivation instrumentality* which, expresses the degree to which a particular valence may or may not be achieved through self-effort.

The external motivation factors overlap with internal factors leading to self-adjustment processes and adaptation of the individual so that it acts spontaneously on its own based on its reasons.

The longitudinal experimental research type was conducted in a case study, its subject being athlete BB, a decathlon athlete with 9-year stage of competition in the combined events, 5 of them in the decathlon competitions.

To quantify the GMF and MI of the athlete we used 14 items structured on intrinsic and extrinsic factors of motivation according to previous research (M. Bologna, D. Gherghisan, 1994, L. Mihailescu, A. Serban, 2005), as it can be seen in table 1.

Table 1. The content of the intrinsic and extrinsic motivational items

Crt. no.	<i>Intrinsic motivational items</i>	<i>Extrinsic motivational items</i>
1.	<i>The content of the sportive activity:</i> trainings, contests, trainings camps, recovery	<i>Normative of sportive activities:</i> laws, statutes, regulations.
2.	<i>Chances of sportive abilities utilization and development in creative way</i>	<i>Material advantages and facilities:</i> bonuses, awards, home, mobility.
3.	<i>Passion for the practiced sport</i>	<i>Social climate:</i> family, club, public, coaches, press, radio-TV.
4.	<i>The sportive desire level:</i> superior categories promotions, team selections.	<i>Social prestige of the athlete, practiced sport, club, coach.</i>
5.	<i>Personal affirmation trend:</i> team hierarchical integration and promotion.	<i>The used management style:</i> by the coach, club, and administration.
6.	<i>The need of performance:</i> to be the best, to win, to self-improvement	<i>School-sport relation:</i> the possibility to be a performance athlete and pupil.
7.	<i>Fear of failure:</i> misses, defeats, injures, opponents, security trend.	<i>Material conditions:</i> installations, equipment, material base, program-schedule.

Results, discussions

The values of V, E, I, GMF and the rank hierarchy of MF of athlete BB were compared with standards determined by Haralambie A., Mihailescu L., for the formative stage performance athletes (seniors) in 2009 (tables 2, 3).

Table no.2 - The value of the structural components of athlete BB motivation (red) comparing with the etalons that were determined to the senior athletes (blue)

Motivation components	Valences		Expectancy		Instrumentality	
	Seniors Team	B.B./Coach	Seniors Team	B.B./Coach	Seniors Team	B.B./Coach
Min.	32	35/36	19	33/30	19	30/30
Decila I	37		25		25	
Decila II	38		28		28	
Decila III	39		29		29	
Decila IV	40		31		31	
Decila V (median)	41		33		33	
Decila VI	41		34		34	
Decila VII	41.7		35		35	
Decila VIII	42		36		36	
Decila IX	42		38		38	
Max.	42		41		41	
Average	40.01		32.01		32.01	

Table .3 The rank hierarchy of MF and GMF value determined on seniors, athlete BB and its coach

MOTIVATIONAL FACTORS	MF - seniors		MF B.B.		MF Coach	
	Pct.	Rank	Pct.	Rank	Pct.	Rank
1. The contents of the sportive activity: training, contests, cantonaments	6.84	V	6	V-VIII	6	IV-IX
2. Chance of utilization and development of the sportive capacities in a creative way	6.79	VI	4	IX-XIV	4	X-XIII
3. Passion for the practised sport	8.22	I	9	I-IV	9	I-III
4. The level of sportive endeavor: promotions in superior categories, group selections	7.09	IV	6	V-VIII	6	IV-IX
5. The tendency of personal affirmation: integration and hierarchical promotion in the team	6.76	VII	4	IX-XIV	9	I-III
6. The performance need: to be the best, to win	8.16	II	9	I-IV	9	I-III
7. Failure fear: failing, losing, injuries, opponents.	4.29	XIV	4	IX-XIV	1	XIV
8. The sportive activity standards: rules, statutes, regulations	7.39	III	9	I-IV	4	X-XIII
9. The material advantages and facilities: bonus, prizes, dwelling, official trips	5.43	XII	4	IX-XIV	6	IV-IX
10. The special climate: family, club, audience, trainers, press, radio-TV	6.17	IX	4	IX-XIV	6	IV-IX
11. The social prestige of the athlete, practiced sport, club and trainer	5.81	XI	4	IX-XIV	6	IV-IX
12. The management style applied by the trainer, club, administration	6.45	VIII	9	I-IV	4	X-XIII
13. The relation between sport and school: the possibility to be a performance athlete and a pupil	6.05	X	6	V-VIII	6	IV-IX
14. The material conditions: instalations, equipment, material base, program - schedule	5.38	XIII	6	V-VIII	4	X-XIII
GMF	6.44		6.64		5.71	

From the analysis of tables 2 and 3 we see are differences between the athlete and the average of senior values, as well as between the values of the athlete and his coach as athlete's perception of the motivational structure. Looking to the GMF values (Table 2) we found that the athlete shows a value of 6.64 GMF, what it shows on the motivation scale a medium motivational level and the coach gives him a low GMF of 5.71, but still the medium level.

Based on the values determined at athlete BB and taking into account the coach's assessment on the indicators mentioned above and the hierarchy of rank of each item in the two (athlete-coach), there were designed the mental training objectives, focused on increasing the motivational indices for competitive year 2009, reaching its 7100 performance points objective and promoting in the Combined Events European Cup Group A: the fixing of motivation, level of aspiration and expectation; increasing the level of combativity and voluntary

motivation; developing the self-improvement will and the achievement of a high social status; awareness of social opportunities for high level sports activity.

In table 4 there are presented the general objectives and their applicability

Table 4.

General objectives	Operational objectives
<p>GOB.1. – Self-confidence development</p> <p>GOB.2. – Responsibility capacity Education in sportive activity</p> <p>GOB.3. – Education of proposed aim awareness capacity</p> <p>GOB.4. – Education of adjustment capacity, psychic states self-adjustment</p> <p>GOB.5. – The development of the self-evaluation capacity</p> <p>GOB.6. – Education of self-perfection and knowledge capacity</p> <p>GOB.7. – Education of cooperation and communication capacity</p>	<p>OP.1.1. - To objectively evaluate his progress in sportive training;</p> <p>OP.1.2. – To objectively analyze the achieved performance level;</p> <p>OP.1.3. - To learn a positive thinking.</p> <p>OP.2.1. - To take the objectives set;</p> <p>OP.2.2. - To take responsibility to achieve its purpose.</p> <p>OP.2.3. - To assume the tasks of training and competition.</p> <p>OP.3.1. - To acquire the intended purpose;</p> <p>OP.3.2. - To objectively evaluate the sportive training.</p> <p>OP.4.1. - To control the emotively level;</p> <p>OP.4.2. - To control the level of motivation and aspirations.</p> <p>OP.5.1. - To properly assess the current performance level;</p> <p>OP.5.2. - To properly assess the training results;</p> <p>OP.5.3. - To properly analyze the performance from training and competition.</p> <p>OP.5.4. - To properly assess the technical execution from training and competition;</p> <p>OP.6.1. - To acquire knowledge of theory and methodology of training;</p> <p>OP.6.2. - To acquire knowledge of sport-related domains;</p> <p>OP.6.3. - To form the habit of always be informed.</p> <p>OP.7.1. - To learn communication techniques;</p> <p>OP.7.2. - To learn skills of cooperation.</p>

lity regarding the training of the athlete in a training meso-cycle.

The

objectives of psychic training concerning the motivational aspect of the athlete

The mental training objectives were achieved through the content of teaching strategies used for the training of the athlete. Content was structured teaching strategy and is expressed in the components:

- methods: conversation, autosuggestion, mental training
- Means: communication exercises, self-suggestion exercises, exposure of intrinsic and extrinsic reasons for success and failure/failure; reasons analysis.
- materials: training notebook, the target sheets, statistical tables
- forms of work organization: individual, focus group

Athlete's motivational level monitoring was carried out based on protocols of observation, in the training where it was emphasis the analysis of attitudinal sphere of sports, depending on the specific characteristics of psychological effort in decathlon. Assessing the scope of the athlete attitudinal scale was performed using descriptive

scale, providing further opportunity to establish the psychological profile of the athlete.

The protocol observation A-content - Behavioral system specific to the event: availability for the effort, desire for progress, development cooperation, task orientation, self-objective, performance-oriented, discipline, fear of success / failure, availability for responsibility, self-confidence.

The observation protocol B-content - the attitude system of the sports to coach: trust, cooperation, communication.

Assessment - descriptive scale: 1, 2, 3, 4. ratings: FS, S, SUF, B, F.B., used for both protocols.

After applying the action strategy concerning the motivational level optimization, we see from the final results of the athletes that the items of instrumentality motivation have been improved: *the goals level, the trend of personal affirmation, fear of failure, management style adopted by coach.* From the results reported by coach on the athlete's motivation the following items were optimized: *the need, the desire to be the best, fear of failure, management style adopted by coach.* By improving these motivational items

the GIM level has increased from 5.5. to 7.14 concerning the assessment of the coach to the athlete and from 5.21 to 7.92 for the evaluation of athletes.

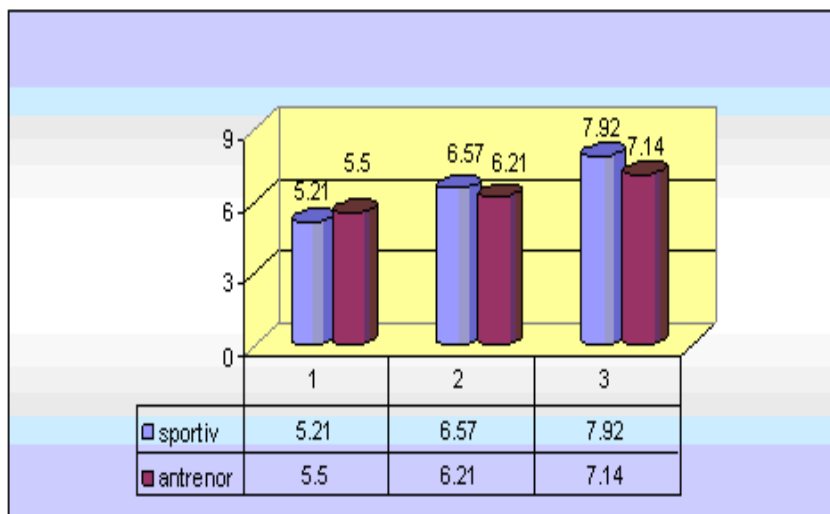


Chart 1. The evolution of the GMI at the end of the experimental approach

Conclusions

- From the research we found a higher level of MF comparing with the seniors standard (Table 3) with a low share of external motivation factors involved in the athlete's results, a general phenomenon highlighted in the formative stage of the senior athletes. This has created the opportunity for mental training focus on conservation and development of the intrinsic motivational factors and the optimization of those extrinsic, hypothesis confirmed by the upper level of the indicator at the end of research.

- Comparison of result obtained for motivation valence achieved at the standard of the seniors athletes we find that the athlete BB has a higher value for this parameter, post- research - action.

- The results obtained after the experimental intervention shows a specific attitude system classified as sufficient for the conducted activity. The action taken in order to optimize the motivational level had a favorable influence upon the athlete's attitude. At the end he recorded a very good availability for effort, supported by the very

high orientation of the subject to performance and very good reliability in the coach.

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