"Mircea cel Batran" Naval Academy Scientific Bulletin, Volume XX – 2017 – Issue 1
The journal is indexed in: PROQUEST / DOAJ / Crossref / EBSCOhost / INDEX COPERNICUS / DRJI / OAJI / JOURNAL INDEX / I2OR / SCIENCE LIBRARY INDEX / Google Scholar / Academic Keys/ ROAD Open Access / Academic Resources / Scientific Indexing Services / SCIPIO / JIFACTOR

CURRENT SELECTION PROCEDURES IN THE NAVAL PENTATHLON

Virgil ENE-VOICULESCU [1]
Carmen ENE-VOICULESCU[2]
Alexandru ABRAMIUC[3]
[1] Professor Ph.D., Naval Academy, Constanta, Romania
[2] Professor Ph.D., "Ovidius" University, Constanta, Romania
[3] PhDc, Doctoral School, UNEFS Bucharest, Romania

***Abstract**: This paper presents the concepts of selection in sport for the lot of national naval pentathlon. Its necessary application in practice the following criteria: medical and biological, somatic-physiological, biochemical, motive and psychological. The selection at the lot of national naval pentathlon is carried out at athletes with the ages between 20 -25 years and with a certain specialization (athletics, swimming and shooting).*
***Keywords**: Medical and biological criteria, physiological, biochemical,*

1. Introduction

The concepts of selection in sport it defined and formulated while numerous specialists (M.S. Brili, 1980; V.M. Volkov, V. M. Filin, 1986; T. Bocu, 1984; C. Răduţ, 1989; N. Alexe, 1993; T.A. Botnarenco, G.S. Solonenco, B.V. Rîşneac, 1993; A. Dragnea, 1996; T. Bocu, S. Tache, 1997) both in sport and in complementary fields, characterized by highly degree of interdisciplinary.
The selection, considered to be a complex problem experts believe, first requires a determination exactly the concept. In his opinion V.P. Filin, (1987), sport selection represents *"(…) system measures methodical and organizational, on which reveals the skills of children, teenagers, girls and boys, for specialization in a particular field determined sports".* V.N. Platonov, (1995), claimed that sport selection is *"(…) searching process the most talented people, able to achieve high results in field concrete sports."*
Taking account of the selection at the lot of national naval pentathlon is carried out at athletes with the ages between 20 -25 years and with a certain specialization (athletics, swimming and shooting), we consider that for a successful selection, it's necessary application in practice the following criteria: medical and biological, somatic-physiological, biochemical, motive and psychological.

2. Medical and biological criteria in selection

Specialist's field sides agree to establish such criteria selection. During the symposium "Selection in Sport" (held in Tirnovo, 1985 on the occasion of the sixth Balkan Sports Medicine Congress), motto was: *"(…)* let's choose the most healthy of healthy*".* In other words, regardless of the stage of selection, health indicator - first revealed by specialists in the field - it is essential and it be treated with maximum severity.
The main indicators, which operates specialists the choice for professional sports, highlight in literature specialized (I. Drăgan, 1980, 1989; V.M. Volkov, 1994) and apply the practice of selection are represented in literature:
Health status - indicator with the greatest stability all selection steps.
Morphological indices are those with the help of which biologists operate in selection. For each sample today there are favorable morphologic biotypes, described to the smallest detail (circumference palmer, span, extension, diameters biacromial and troharentian, limb length, scale planting, etc). The process of conducting scientific training directed can and must lead in a few years systematic activity achieve somatic biotype.
Functional indices you exercise capacity psychophysical are indices which will reflect not only consequences training. These indicators are represented by functional indices cardiovascular, neuromuscular, endocrine - metabolic, of aerobic capacity and anaerobic exercise. They are used to assess the degree of training, shape sports, especially are used in sport training for compliance dosing principle adequate effort individual possibilities.
Motricity indices (speed, strength, resistance, skill), belonging coach, representatives of medical sciences analyzing scientific basis physiological these.
In terms of selection for special competitions: World championship or Continental, Olympic Games, there are a number of requirements: acclimatization to altitude, time zone, weather conditions and special psychophysical resistance, etc.
In these cases biomarkers selection become as important the athletic performance taken as a single element. Indicators which reflect a good physical robustness (stress resistance, psycho-reactivity, maintaining a high yield under stress, concentration-attention, etc.), level of health, become decisive in selecting an athlete at this level.

DOI: 10.21279/1454-864X-17-I1-068

3. Somatic - physiological criteria in the selection of sports

The results obtained in the field of genetic determination they are of special importance for athletic activity. At the same time, an important consideration for selection and sports orientation is the data with respect to the body structure. This is a new parameter of the functional capabilities to the human organism (V.G. Anikina, 1972; I.L. Bolşakov, 1978; V.S. Farfel, B.V. Răşneac, 1978; A.V. Aminova, 1982; O.N. Nikiforova, 1991; Volkov, V.M., Milner, E.G, 1991). In general, the new generation recorded higher indices physical development compared to the parental - the phenomenon of acceleration - ***secular trend*** – G. Roberts, E.W.Koch, (1983) and neotonic.

Obtaining performance is conditional a certain rate of masculinity or femininity. Determination of morphological parameters genetically conditioned who defining the type somatic-sexual it is absolutely necessary in selection (method Bayer – Bailey). Morphological parameters with importance and degree of determination hereditary used in selection are: index body active substance (AKS) and muscular index. Establishing global design type body by genetic methods, bioelectrical, psychophysical reveal correlations the various typologies body building and sport performance.

Physiological parameters type of somatic are addressed in literature specialized with the morphological.

Because drive ability it is conditional the factor somatic-physiologic, mental, and biochemically selecting physiological parameters they are always present correlated with determinism their own level basic motor skills (speed, strength, resistance, skill). For an efficient selection in professional sports, whatever echelon to which this is process, physiological criteria are recommended: maximum consumption O2/kg – VO2 max. (Ml/kg); maximum anaerobic power alactacid TTR20", volume big heart VC (ml); cardiovascular use index (ICV); cardiac stress economy W/KG.

4. Biochemical criteria in the selection of sports

Considering biochemical parameters the body defining and processes which determine the effort, some scholars of the field considers it necessary to introduce in the selection criteria biochemical investigations (A. Demeter, 1973; N.I. Volkov, 1975; I. Baciu, 1977; I. Drăgan, 1980).

It is recommended dosages battery aimed at the detection of subjects with values as high the following elements: difosoglicerol (DPG) in blood, ATP şi adenozintrifosfataza, and muscle myoglobin (a deposit of O_2, that with higher allow for faster and intense efforts), electron transporters load power (NAD, NADP, FAD, citocromoxidaza) in blood. At the same time, based on studies in the laboratory, medical specialists in the field propose in the selection process respect for values determining parameters, presented in the following table:

Table 1.

Parameters	Unit	Normal value	Very good value
Hemoglobin	g%	13 - 16,5	14 - 17
Protein	g%	6,5 - 7	7 - 7,5
Urea	mg%	275 - 400	275 - 350
Lactic acid	mMol/l	10 - 12	8 - 10

(after N. Alexe, 1993)

5. Driving criteria in the selection of sports

For majority branches sports, motility, namely the level and pace developmental stage, it becomes the basic criterion of selection (A.A. Balai, 1985; N. Alexe, 1993; A. Dragnea, 1996; G.A. Ghilev, 1998).

Testing availabilities general driving and specific branches sports it is realizing through a system of samples and control rules set for each branch of sport, according to specificity. These samples applied more years in the training process revealed process growth qualities in terms of quality or quantity. A number of branches of sport before the actual selection it takes a special period for accommodation with specific environment: water, snow, ice.

DOI: 10.21279/1454-864X-17-I1-068

Motricity appreciation, as an expression of the degree of development of each driving qualities in part is based on included performance during in a battery of tests which is based on international test physical capacity known as *"STANDARD FITNESS TEST",* adjusted by International Federation of Physical Education (F.I.E.F.). Control samples used for detecting motor skills level, they are different from one sport to another branch, depending on the specific requirements those sport test, and results are rated unit by using the scaling *Hull.*

Bibliography

[1]. Alexe, N., *Modern sports training*, Publisher Editis, Bucharest, 1993
[2]. Aminova, E.V., *Physiological function characteristic of muscular effort in children who practice swimming,* Taskent, 1982.
[3]. Ankina, B.G., *Capability index muscular system functional status in the sports training of young swimmers,* Saratov, 1972.
[4]. Baciu, I., *Physiology*, Publisher Didactic and Pedagogical, Bucharest, 1977
[5]. Bocu, T., *Study on improving sports concept selection*; Physical Education and Sport Magazine, Nr.11, Bucharest, 1984.
[6]. Bocu, T., Tache, S., *Selection in sport*, Publisher Dacia, Cluj- Napoca, 1997
[7]. Botnarenco, T.A., Solonenco, G.S., Rîşneac, B.V., *Ways to increase the degree of selection and training of the swimmers performance,* I.N.E.F.S., Chişinău, International Scientific Conference, vol.II., 1993.
[8]. Brili, M.S*., Principles and methodical bases of active selection of pupils to improve sports*, Doctor thesis, Moscova, 1987.
[9]. Dragnea, A., Sports training, Publisher Didactic and Pedagogical, Bucharest, 1996.
[10]. Drăgan, I., *Health and performance*, Publisher Albatros, Bucharest, 1980
[11]. Drăgan, I., *Medico-biological selection in sport*, Publisher Sport-Turism, Bucharest, 1989
[12]. Demeter, A., *Sports physiology*, Publisher Sport-Turism, Bucharest, 1973.
[13]. Farfel, V.S., *Significance analysis of driving ability of children in swimming,* Physical Education and Sports, Moscova, 1978.
[14]. Filin, V.P., *Theory and methods of sport among youth,* Moscova, 1987.
[15]. Ghilev, G.A., *Methodology - speed performance swimmers training mandatory*, Doctor thesis, Moscova, 1997.
[16]. Nichiforova, O.N., *Criteria and ways to improve the functional possibilities of long-distance runners and environments in the preparation of athletes of different ages,* Moscova, 1991.
[17]. Platonov, V.N., *Sports training theory and methods,* Kiev, 1983.
[18]. Răduţ, C., *Weather and sports performance model*, Physical Education and Sport Magazine, Bucharest, nr.2, 1989
[19]. Volkov, V.M., Milner, E.G*., Adapting training and preparing the athlete's psyche,* Moscova, 1981.

DOI: 10.21279/1454-864X-17-I1-068