

Criterios metodológicos para seleccionar adecuadamente al posible talento deportivo

Methodological approaches to select adequately the possible sport talent

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RESUMEN

La práctica demuestra, que el deporte moderno se caracteriza por un impetuoso crecimiento de las marcas, asociadas con una considerable intensificación de las cargas de entrenamiento y de competición para lograr altos resultados deportivos, lo cual ha provocado que el conocimiento científico tenga cada vez más significación en la organización técnica y metodológica para la selección de talentos deportivos. Ante esta situación, resulta de gran importancia desarrollar una detección previa de los futuros deportistas, acorde con los principios, y criterios existentes en la literatura contemporánea, por los cuales deben guiarse los especialistas para la conformación adecuada de sus equipos deportivos.

Palabras clave: Talento; Talento deportivo; Selección de talentos; Criterios; Indicadores

ABSTRACT

The practice demonstrates that the modern sport is characterized by an impetuous growth of the marks, associated with a considerable escalation of the loads of training and of competition to achieve high sport results, that which has caused that the scientific knowledge has more and more significance in the technical and methodological organization for the selection of sport talents. Before this situation, it is of great importance to develop a previous detection of the future sportsmen,

chord with the principles, and existent approaches in the contemporary literature, for which the specialists should be guided for the appropriate conformation of their sport teams.

Key words: Talent; Sport talent; Selection of talents; Approaches; Indicators

INTRODUCTION

As a result of the current context that sports live internationally sports live, where scientific and technological development is increasingly growing in terms of converting high performance sport into an elitist activity, the process of long-term sports preparation becomes vital and within this, the necessary task of determining who are the future prospects, who meet the necessary conditions to start sports and place themselves in the world elite in a certain modality.

Considering that talent in sport today is one of the main conditions to achieve great sports results, its search has become a scientific priority, which has conditioned the sports team to become a problem addressed by numerous scientists, for which they have dedicated a considerable amount of research and publications.

For the aforementioned, the work with young talents has required specialized attention from experts, mainly, at the time for the beginning of sports at an early age, a period where positive experiences related to arrival are manifested to the top of sports mastery, and for having a short life in sports, on the other.

As is known, the terms talents and sports talent appear conceptualized in the specialized literature of the sport by different authors.

When defining the concept of talent, discrepancies are currently observed, which are further exacerbated, as this term is addressed by several specialists in different languages, primarily in the English language, using criteria to name people with outstanding skills such as talent and gifted, which translated into Spanish means talented and gifted (García 2003).

Talent, according to the dictionary of the Royal Academy of the Spanish Language, *"is intelligence, intellectual capacity, aptitude, ability to perform or exercise an occupation."* It is also defined as *"intellectual skills, such as ingenuity, ability, prudence, etc., that shine in a person"* (Spanish Royal Academy, 2006).

For Petrovski (1988) *"... talent is the combination of skills, which give man the ability to successfully complete any complex work activity. Talent constitutes only the possibility of acquiring a high qualification and significant success in creation"*.

On the other hand, for Hahn (1988) "... talent is an attitude accentuated in one direction exceeding the normal average, which is not yet fully developed."

For Noa (2001), "... talent is the expression and reflection of the most perfect combination of innate and environmental factors, manifested in certain people."

Over time, it has been proven that finding people who have the ideal profile for a particular activity in social life according to their behavior, is a difficult and complex task. Of the studies conducted to categorize talent from a broader concept, Rice (1985), describes six categories or types of talents, the last two categories of which appear below represent those subjects who stand out in the field of physical activity and sport:

1. Academic talent.
2. Creative talent.
3. Psychosocial talent (leadership).
4. The talent in performing arts.
5. The kinesthetic talent (athletic).
6. Perceptual-motor talent.

When referring to sports talent, we must consider that it acquires an integral character, depending on hereditary and motor conditions, as well as outstanding morphological, functional and psychological characteristics, which for their development must be interrelated with the environment, so that as a whole contribute to their sports training, and with that, subsequently to the achievement of high sports results. Like the definition of talent, sports talent conceptualized by several authors also behaves differently.

Zatsiorski (1989), considers that "... sports talent is characterized by a certain combination of motor and psychological abilities, as well as anatomo-physiological skills that together create the potential possibility for achieving high sports results in a particular sport".

Blázquez (1995), points out that "... it is said of a talented person, one who, due to his capacity for assimilation and performance, stands out in a particular sport specialty. Talent depends on the individual capacity, the motivations of the subject and the social environment, an expression of interaction of these conditions. Talent has to be not only discovered, but also stimulated and trained".

Pila (1998), considers that "... sporting talent is any outstanding manifestation of the human being, which translates into high rates of motor and morphofunctional performance, which propitiate an adequate initiation and development in the complex pedagogical process called sports training".

However, Collazo and Betancourt (2006), consider that "... a sports talent is an individual with physical abilities above the normal average of his age and who are not yet fully developed and perfected, many times with a somatotype superior for their age, with certain individual aptitudes to learn".

It is important to note that for Hahn (1988), three types of subjects with talent in sports are distinguished:

1. Motor talent or general motor: it is observed in children that they learn movements easier, faster and more safely, and that they have a repertoire of wide movements.
2. Sports talent: provides an above-average disposition to undergo a training program, to achieve excellent performance.
3. Sport specific talent for a sport: it implies the physical and psychic requirements to be able to reach extraordinary performances.

Another classification about sports talent is that addressed by Ray (2017), based on the speed of maturation of talent, especially for sports games, where it defines two categories:

1. Immediate talent: is the innate tactical, technical, physical and psychological capacity in an individual to face high demands of play, after having been subjected, or not, to a training process.
2. Mediated talent: they are innate abilities that appear and disappear in an individual when faced with specific game situations, and that need monitoring and training for their development.

This classification is due to the fact that not all subjects have the same rhythm of maturation and motor development, which sometimes leads to errors in the selection process of sports talent, excluding those who have less possibilities in a determined moment or situation, without anticipating that this can reach better sports performance than the one that at first sight is identified as a possible talent.

DEVELOPMENT

As is known, the sports selection process, or of possible sports talents, is very embarrassing, having in mind a series of methodological observances, with the simple purpose of developing an adequate selection, using the advances of science and technology according to the type of sports, their characteristics and requirements.

Therefore, for a sport, each modality and sport category, several aspects in the biological, psychological, sociological and physical order, that define the development and growth of the child, and which in turn have to be taken into account different levels of influence on the sports performance of talent, according to the chosen sport modality.

The multifactorial study is considered important and decisive when selecting talent, but nevertheless, it would be necessary to determine among so many criteria expressed on this topic in the specialized literature at present, what would be the system to be used to accomplish this task.

Therefore, it is important as an objective of this work, that the reader knows the opinion of several authors on what scientific criteria should be taken into account in the process of sports selection or sports talents.

Kunst & Florescu (1971), concluded that the main elements of performance, to discover on the occasion of the selection of an athlete are: motor ability, psychological capacity and biometric qualities (somatotype and anthropometric measurements).

Some researchers, such as Gollvik, Kellerth, Ellerth and Ulfhake (1986) and Klissouras (1983) among others, cited by Bompa (1987) consider taking into account health, inheritance, and the proportion of muscle fibers.

On the other hand, Bulgakova and Voronov (1978), suggest taking into account other indicators such as attention, coordination of movements, ability to understand and execute exercises, differentiation of muscular efforts, the vestibular sensations, the state of health and physical constitution and the social situation for the orientation towards certain sport.

Meanwhile, Shgiling (1974), states that the personal attitude of each student and their interest in the selected modality, as well as their constitution and physical development, the ability to understand the students must be taken into account exercises and motor skills (coordination and physical disposition).

Bompa (1987), points out that the selection criteria of athletes (including tests, standards and model characteristics), must be specific to each sport. He sets as an example that in sports where resistance level or work volume are considered essential, the final selection must be based not only on the athlete's work capacity, but also on the ability to recover among training sessions.

This author also notes that among the selection criteria to be taken into account are:

- health (allows the detection of possible physical or organic problems and make pertinent recommendations, as well as the evaluation of motility, serves to show functional inequalities),
the biometric qualities (considering as important elements the size, weight or the length of the limbs),
- the inheritance (considering variables that are genetically determined, and that their development obeys the genetic potential of the individual such as body height, weight, adiposity, muscle strength, speed and anaerobic power),
- the proportion of red and white muscle fibers (allow direct talent to be directed towards sports to which they are better equipped, that is, predominance of white fibers for sports where speed and / or potential, and predominance of red fibers for sports where resistance),
- sports facilities, weather and the disposition of the specialists or level of knowledge of the coach regarding the selection of the tests, among others.

Volkov and Filin (1989), consider that sports selection must be carried out in stages and with a comprehensive approach, which includes a study of the athlete as a whole and of his sports faculties, defining that the main criteria to be taken into account are:

- a) Pedagogical criteria: they define the development of physical abilities, technical-tactical preparation, technical-sports mastery, motor learning capacity, and sports results.
- b) Medical-biological criteria: they evaluate the state of health, the biological age, the functional morpho characteristics and the state of the sensory systems.
- c) Psychological criteria: they include the indexes that testify the possibilities of perfecting the different psychic qualities according to the demands of the sport modality, the degree of development of the volitional qualities, the particularities of the character and the temperament.
- d) Sociological criteria: they include the characterization of the indices that make up the formative influence of sport, family and society.

According to the aforementioned authors, sports games, unlike other sports groups, should consider the following aspects to control in the sport or possible talent selection: the sensomotor reactions, complex actions quickly, procedure and rapid response, agility in sporting, control of emotional state and cooperation.

Tschienne (1989), states that in this group the following aspects should also be considered as control aspects: the ability to learn, the ability to use the specific motor technique successfully and quickly, the intellectual level and operational thinking in a situation of game, specific skill in the game activity, good space-time control, creativity in the game situation, cognitive function (perception, memory, thought, language, etc.), psychic activity, predisposition and mental adaptation to the specific situation, the ability to withstand high physical loads and mental efforts and the ability to react to stress in play situations.

In addition, Morales and Álvarez (s/a), keep in mind psychophysiological indices such as sensomotor reactions, resolving capacity, emotional control, creativity, and resilience. Similarly, Ray (2017), considers as a superior quality for the selection of talent in sports games, game talent, based on the study of indicators by game

profiles, and within these elements adds significant importance to the mental strengths that players must possess.

On the other hand, according to Volkov and Filin (1989), indicate that among the aspects to be taken into account in combat sports, are the simple and complex reaction speed, the assessment of the opposite, the sense of distance and emotional control in both offensive and defensive actions in a certain time.

In addition, Morales and Álvarez (s/a), consider the qualities related to rapid force, audacity, decision, perseverance, tactical thinking, self-control of the temporal-spatial parameters of the movement, among others.

According to Volkov and Filin (1989), fast-force sports should consider aspects related to reaction speed, explosiveness, rhythm and coordination. In addition, Morales and Álvarez (s/a), in sports of speed and strength (jumps, throws, weights), preference is given to children with a well-developed musculature, and a high level of development of speed and strength.

Volkov and Filin (1989), recommend that endurance sports should consider aspects related to the coordination of organic functions and maximum oxygen consumption. Although Morales and Álvarez (s/a), that the cyclic sports that are characterized by the predominant manifestation of resistance, for example swimming, their successes depend on the level of strength preparation of the athlete, and the traction capacity that this can develop in the water. Also important are size, hydrodynamic possibilities, joint mobility and psychological qualities, such as will.

For Volkov and Filin (1989), sports of appreciation and competitive art, should consider aspects related to spatial orientation, coordination and rhythm, balance and joint mobility.

Ilisástigui (1999), establishes the theoretical-methodological bases for the preparation of a selection system in Rhythmic Gymnastics, based on the characteristics of the level of physical, technical preparation, and morphofunctional characteristics of the best gymnasts in the country, considering the aesthetic impact, the condition, the efficiency and the motor creativity, as integrating qualities of the ideal model.

In China, according to Hong (1992), in the area of high jump, athletes are identified or evaluated according to the following aspects: general growth pattern, maximum growth duration, motor skills, coordination and temperament, grade of physical development and the record of performance, hereditary and health factors and assessment of the regularity of training progress.

García, Navarro and Ruiz (1996), recommend among the aspects to be taken into account for an adequate sports selection or of possible talents: heredity, biological age, optimal selection age, status health, anthropometric parameters, muscular composition, potential for development of physical and coordinative qualities, predisposition to performance, psychological characteristics, cognitive abilities and historical background.

In turn, Hahn (1988), states that among the aspects to be considered for the proper selection of sports talent are the following: anthropometric requirements (size, weight, the proportion between muscle tissue and fat, the center of body gravity and harmony between proportions), physical characteristics (aerobic and anaerobic resistance, speed of reaction and movement, resistance-speed, static and dynamic force, strength of resistance, flexibility and coordination between movements), the technomotor conditions (balance, spatial and distance perception, sensitivity to the ball and acoustics, musicality, expressive rhythmic and displacement capabilities).

This same author also declares as aspects the ability to learn (ability to understand, ability to observe and analyze and speed of learning), the predisposition for performance (diligence in training, readiness for corporeal effort, perseverance and acceptance of frustration), cognitive management (concentration, motor intelligence, creativity and tactical abilities), affective factors (psychic stability, overcoming tension and willingness to compete), social status (acceptance of a role and insertion into a team).

Platonov (1988), considers that the criteria to be taken into account for the selection of talents are: size, energy skills of the organism, the age of the beginning of the discipline, morphological characteristics, the level of development

of motor skills, athlete's health status, quality in the execution of special exercises, biological age and mental predisposition rates for the practice of sport.

On the other hand, Matveev (2001), expresses the need not to adhere to a single aspect, but to consider different criteria including anthropometric (longitudinal and transverse dimensions, circumferences of its parts, mass, specific weight of muscle mass and other components of body mass, the size, weight, highlighting among them the individual body structure), the physiological ones (the individual correlation of the muscle fibers of different types of the musculoskeletal system: fast fibers and slow fibers) and the functional possibilities of the organism, that is, the aerobic, mixed and anaerobic energy contribution).

Matveev (2001), also raises the psychic aspects (sensations, perceptions, concepts, imagination, memory, operational thinking, sensomotor reactions and psychoregulatory manifestations in sports activity, the characteristics of the structural properties of the personality, its orientation and level of pretensions, temperament, character traits, the manifestation of interpersonal sports relations), and the pedagogical (the multilateral manifestation of individual motor possibilities, that is, qualities of strength, speed, rapid force, coordination, resistance, flexibility). For Noa (2003), the criteria (indicators) to be taken into account for the selection of talents are: the anthropometric conditions typical of the given sport, the special physical abilities, the basic motor skills of the sport in question, the motivations and sports aspirations in the chosen modality, learning capacity and social conditions and family support.

Romero (2001), considers that the selection of possible talents responds to certain indicators such as: the initial results in the basic exercises that constitute motor markers due to their high correlation with the possible competitive discipline, the pace or tempo of development of the dominant motor skills (speed, strength, endurance, flexibility, coordination) in a given time (mesocycles, stages, periods, macrocycle or macrocycles).

This same author, raises other indicators such as the pace or tempo of development of competitive results, taking into account the correlation between the initial results and the growth rates of the preparation, the rate of assimilation of the

load (amount of volume and intensity that assimilates the athlete by days, mesocycles and stages, with respect to the population average that trains, the genetic inheritance (height, reaction time, etc.), the intuition of the coach (vision, previous experiences, observation), the psychological traits (personality, character, will).

On the other hand, Romero (2008), considers that aspects related to the constitution must be taken into account (assessment of anthropometric and somatic aspects of the individual, where height, weight and somatotype are distinguished, as well as medical-biological elements and/ or genotypic), the specific technical-coordinative aspects of the sport (evaluation of specific skills of the activity to be developed), the physical condition (evaluation of physical aspects such as strength, endurance, speed and combinations thereof, flexibility and coordination).

In the same way, this author like other aspects to the personality, more tactical thinking (psychological aspects such as concentration, perception, representation, estimation, orientation, motivation, capacity for cooperation, temperament, tactical capacity and others, depending on the sport), sports results (competitive evaluation, times, points, effective movements) and the potential to make their competitive level sustainable (evaluation of the acceptance of a specific function and the willingness to compete for the performance of certain work for a space of time aspects that can allow these players for a set period of time).

CONCLUSIONS

There is variability in the criteria considered by the authors for the selection of possible talents, and a coincidence of them when recognizing the degree of integrality when evaluating the criteria and finally identifying and selecting sports talent.

As a general rule, the criteria addressed focus on aspects of a pedagogical nature (the development of motor skills, the technical-tactical level, the rate of growth of yields, motor skills, coordination possibilities), of a biological nature (in the state of health of the child, his biological age, morphofunctional characters, the state of functional systems), of a psychological nature (attest to the possibilities of

perfecting the different psychic qualities depending on the demands of the sport modality, among them stand out the development of volitional, cognitive qualities, the peculiarities of character and temperament), and of a sociological nature (they include the characterization of the motives, interests and demands of athletes).

The selection criteria are conditioned by each sports specialty, therefore it is not possible to speak of an applicable methodology for all sports equally, which requires each modality to establish its own methodology to identify and select possible sports talents.

BIBLIOGRAPHIC REFERENCES

- Blázquez Sánchez, D. (1995). *La iniciación deportiva y el deporte escolar*. Barcelona: INDE.
- Bompa, T. (1987). La selección de atletas con talento. *Revista de entrenamiento deportivo*, 1(2),46-54.
- Bulgakova, N. y Voronov, A. (1978). Comment pronostiquer les capacités des nageurs en s'appuyant sur les recherches longitudinales. *Teoriza y praktika*, 7,37-40.
- Collazo Macías, A. y Betancourt, N. (2006). *Teoría y metodología del entrenamiento deportivo*. Tomo II. (Material no publicado). Instituto Superior de Cultura Física Manuel Fajardo. La Habana.
- García Manso, J.M., Navarro Valdivieso, M., Ruiz Caballero, J. (1996). *Planificación del entrenamiento deportivo*. Madrid: Gymnos.
- García Manso, J.M. (2003). *El talento deportivo. Formación de elites deportivas*. Madrid: Gymnos.
- Gollvik, L., Kellerth, J., Ellerth, O., Ulfhake, B. (1986). The effects of tenotomy and compensatory hypertrophy on the postnatal development of soleus motor units in the cat. *Acta Physiologica Scandinavica*, 126(4),565-573.
- Hahn, E. (1988). *Entrenamiento con niños*. España: Martínez Roca S.A.
- Hong Wu, Ch. (1992). *Talent identification in China: New Studies in Athletics*. IAAF. Bureau (London).

- Ilisástigui, M. (1999). *Sistema de selección Deportiva en la Gimnasia Rítmica para los centros de alto rendimiento*. (Tesis de doctorado). Instituto Superior de Cultura Física Manuel Fajardo. La Habana.
- Klissouras, V. (1983). Fattori genetici e prestazione sportiva. SdS. *Revista di Cultura Sportiva. Scuola dello Sport. CONI*, 2,(1),34-41.
- Kunst, G. & Florescu, C. (1971). *The main factors for performance in wrestling*. Bucharest: National Sports Council.
- Matveev, L.P. (2001). *Teoría general del entrenamiento deportivo*. España: Paidotribo.
- Morales, A. y Álvarez, M.E. (s/a). *El control del estado de preparación en el deportista: Amenazas, Retos y Soluciones* (Material no publicado). Instituto Superior de Cultura Física Manuel Fajardo. Facultad de Cultura Física de Villa Clara. Cuba.
- Noa Cuadro, H. (2003). *Modelo de selección de talentos futbolísticos para la iniciación al deporte elite*. (Tesis de doctorado). Instituto Superior de Cultura Física Manuel Fajardo. La Habana.
- Petrovski, A.V. (1988). *Psicología general*. La Habana: Pueblo y Educación.
- Pila, H. (1998). *La selección de talentos deportivos en la edad escolar. Manual del profesor de educación física. Dirección técnica general*. La Habana: INDER.
- Platonov, V.N. (1988). *El entrenamiento deportivo. Teoría y Metodología*. Barcelona: Paidotribo. S.A.
- Ray Castro, L. (2017). *Sistema de control del talento de juego para la captación de jugadores de Fútbol en el eslabón de base*. (Tesis de doctorado). Universidad de Guantánamo. Facultad de Cultura Física. Guantánamo.
- Real Academia Española (2006). *Diccionario de la lengua española*. Madrid: Espasa-Calpe.
- Rice, J.P. (1985). *The gifted. Developing total talent. 2º Edición*. Springfield: Charles, C. Thomas.
- Romero Frómeta, E. (2001). *Una metodología para elaborar la clasificación del rendimiento deportivo en el atletismo cubano*. (Tesis de doctorado). Instituto Superior de Cultura Física Manuel Fajardo. La Habana.

- Romero, R. (2008). *La selección y preparación de deportistas de Canoa-Kayaks*. La Habana: Deportes.
- Shgiling, G. (1974). Überlegungen zur talentsuche im Sport. In: *Leistungssport*, 4,274-277.
- Tschiene, P. (1989). La selección del talento en el juego deportivo. *Rivista di Cultura Sportiva*, SdS,33-39.
- Volkov V.M y Filin, V.P. (1989). *Selección Deportiva*. Moscú: Vneshtorgizdat.
- Zatsiorski, V.M. (1989). *Metrolología deportiva*. Moscú: Planeta.