



An Overview of the Important Points of Talent Selection in Sports



Surhat Muniroglu* and Erdem Subak

Faculty of Sport Sciences, Ankara University, Turkey

*Corresponding author: Surhat Muniroglu, Faculty of Sport Sciences, Ankara University, Turkey, Tel: 903122211601; Email: smuniroglu@hotmail.com

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Abstract

Talent selection is the most important phase to train elite athletes for future. In the talent selection stages, there are many important criteria's have shown in the literature. The age is an important criterion. Besides, physical fitness, anthropometric data's have used to the testing athletes for talent selection. On the other hand, the cognitive, perceptual and motor skills are also important factors to determine talented individuals. Researchers have conducted many tests for talent selection also include genetic testing nowadays. This review summarizes the most important criteria's and the most commonly used tests roughly.

Keywords: Talent selection; Young athletes; Sports

Introduction

The main goal in selecting a talent is to train the athlete to the highest level in order to be successful in a sport branch. Interaction of genetic resources such as race, gender, genetic background, intelligence, locomotor, neuromuscular, anatomical structure, psychological state could be the determinants of future performance [1]. A talented athlete is known as a sportsman who has a wide variety of functional repertoire and who can quickly and accurately use these movements in different situations, creating

Age

Table 1: The ages of starting special sports training.

Age	7	8	9	10	11	12	13	14	15
Sports Branch	Gymnastics Aerobic Diving	Tennis Table Tennis Squash	Swimming	Football Basketball Volleyball Handball Hockey Badminton Rugby	Athletics Cycling Archery	Fencing	Boxing Wrestling Judo	Skiing Canoe Rowing	Horse Riding Pentathlon Weight Lifting

The researches revealed that the sport should be started in childhood in order to achieve the expected success [3]. It is important for talented individuals to be pioneered at an early age in order to be selected, monitored and brought to the top of their mastery. The motor capacity, psychological capacity and biometric-

appropriate combinations, and quickly learning and applying new movement patterns and combinations [2]. Genetics, socio-cultural structure, economics and education are factors that are effective in determining talent. In addition, individual, environmental and luck factors are among the determinants of talent. The aim of this review is to bring together the most general information about talent selection on the football, the criteria's used in the selection of talents, the features in the foreground and the frequently used tests.

anthropometric properties required for yield are valid for all sports, whichever is more dominant, may be different for each sport [4,5]. Bompa et al. [4] indicates that, talent screening and selection work is proper for 6-12 age group. The ages at which to start training according to the branches are shown in Table 1 [2]. Biological aging

is a factor that affects growth, performance and physical fitness [6]. Changes in the date of birth of the same year are defined as relative age differences [7,8]. It is a very important issue of sport science that children and youngsters are directed to branches in the most efficient way. For this reason, it is important to direct the children to the sports branch where they can be successful at the earliest possible age. Early detection of the potential performance of the sport will provide the basis for the athlete to direct the correct sport and achieve optimum performance.

Physical Fitness and Anthropometric Data's

As in all sport branches, anthropometric features and physical fitness are also important elements for football. In the process of talent selection and orientation, the anthropometric features and abilities of the individual are two important factors that are jointly assessed for correct orientation and performance estimation. For this reason, anthropometric measurements are made at each stage of the process [9]. Only the length and body weight measurements are made since a wider base scan is performed at the base selection stage than the other stages. According to these measurements, the body compositions of the children are determined and their physical development and fitness status are determined by comparing according to the percentile tables [4,10]. In line with this information, children's education planning has done. The anthropometric characteristics of the athletes during the pre-selection phase are a very important factor to consider in their work towards sport. In this phase, in addition to the general measurements made during the basic selection stage, children are tried to determine the most suitable sports branches by determining extremities and bone lengths, body compositions, body fat ratio, lean body mass and somato type [7,11,12]. In the final selection phase, the anthropometric characteristics of the athletes should be determined using advanced techniques and technological equipment. Measurements and calculations to measure body circumference and diameter, body composition and somatotype to be made at this stage will provide important data for evaluating the development and performance level of elite athlete candidates [2,4,13].

Skills

There are basically three types of skills in sport: Cognitive skills, perceptual skills and motor skills [2]. The cognitive skill includes mental and intellectual skills of the athletes. Cognitive skills are essential for the athlete's perception, effective decision making and problem solving. Perceptual skills are planning to formulate the motor skills according to the current situation by interpreting what they have learned to perform. For example, a footballer takes the correct position to control the ball taking into account the speed of the ball towards him and adjusts the severity of the first contact. And the researchers have divided the basic motor skills into three groups according to their functional characteristics. These are the skills that require balance skills (static or dynamic balance), displacement skills (such as running, jumping, and galp) and object

control (such as kicking the ball, throwing ball, throwing and holding) [14,15]. On the other hand, there are other very important skills that sports require. The conditional skills (Strength, endurance, speed etc.), coordinative skills (Balance, anticipation, reaction, rhythm etc.) and both conditional and coordinative skills (flexibility and mobility) are another abilities required to be found in talented athletes [2]. Testing all these abilities is important in talent selection.

Talent Selection and Direction Stages

According to the talent selection and guidance models developed by sports scientists, Hare's model has two stages (1982), Gimbel (1976) and Jones & Watson's model has four stages (1977) and Bar-Or's model has five stages [2,16]. However, Bompá's model (1985) includes three stages was widely accepted in the sporting world. Compared to other models, the most striking aspect of Bompá's three-stage talent model is that the work planned in the first phase is directed at children aged 3-8 years [4,17]. Bompá's model has divided the talent selection and orientation process into three phases: basic selection, pre-selection and final selection. In the basic selection phase, measurements and comparisons are made to determine general health screening, anthropometric and motoric characteristics of children between 4 and 8 years of age. In this phase, general information and health checks, demographic information is provided. In addition, anthropometric measurements are made, motor skills are determined and basic sports training is provided. In the pre-selection phase, health checks are done again. Then, training adaptation studies, age calculations, identification of psychological professions, skill tests are provided [2,4,17]. In the final selection phase, data on the development and performance levels of athletes, new measurements, skills and laboratory tests can be done to confirm fitness for sports. According to the evaluation results, skilled athletes are directed to the sports high school or camp centres where full-time academic and sport training is given [4,13].

Tests for Talent Selection

Today, there are many test batteries that are widely used around the world to determine motor skills and physical fitness levels in children and young people. Some of the most used tests are; Kraus-Weber Minimal Fitness Test, Presidential Physical Fitness Test, Youth Fitness Test, Monibota Physical Fitness Performance Test, National Children and Youth Fitness Study Tests, Chrysler Fund Fit Youth Today Program, Fitness gram System, The Allgemeine Sport Motorisher Test and Euro fit Tests [18-24].

Among these tests, the Euro fit test is one of the most frequently used test in researches [25-29]. The Euro fit tests include skin fold thickness measurements, flamingo balance test, plate tapping, sit-and-reach, standing board jump, handgrip test, sit-ups in 30 seconds, bent arm hang, 10×5 meters shuttle run and 20 meters endurance shuttle run (bleep test) [2].

Genetic Tests

Research shows that 66% of sportive performance is related to genetics. The remainder is related to training, nutrition, equipment, motivation, sleep and non-genetic factors [30-32]. Sport genetics is accepted as a new science that examines the genetic organization and functioning of elite athletes. At present more than 120 genetic associations with athletic performance have been shown [30].

Silventonen et al. [33] showed the height, which is critical in most sport branches, is 80% heritable. Researches showed that elite athletes have genetic differences from sedentary individuals. However, genetic differences between elite endurance athletes and elite force athletes have also been identified. The ratio of the type of muscle fibril showing which spores are predisposed is also associated with the individual's genetic differences [30,34,35]. Researchers think that genetic testing could give important information to an individual even before the start of the sport. In this context, genetic testing is shown as an alternative method of informing the researchers about the type of sport that the individual will be prone to during the talent selection phase [35-40].

Conclusion

The choice of talent is the most important step to cultivate elite athletes. As well as the selection of talented athletes, how they are trained is also important. At this point, the coaches and instructors have significant duties. Future research should also include topics on how to train selected talents.

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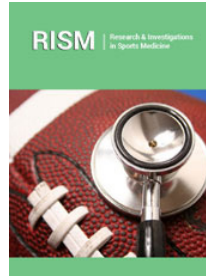
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