A Mini-Review of Track And Field ̓ s Talent-Identification Models in Iran and Some Designated Countries

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ABSTRACT

Talent identification and training the athletes of the basic levels in track and field requires codifying a proper model like any other system so that any duplication is prevented as well as knowing the right path. The federation of track and field started to codify the national talent-identification scheme in track and field in 1385. Hence, the present studies track-and-field talent-identification patterns in some designated countries and compare them with the codified pattern in Iran. The research method of the present survey is of review which studies track-and-field talent-identification patterns in countries like the Russia (Soviet Union), the Germany (former East Germany), China, Australia, Romania, Italy, USA, England, Hungary, Canada, Japan, Qatar, Malaysia, and Iran. Studying track-and-field talent-identification pattern in Iran shows that lack of a new opportunity for trainees and unsustainability of the practical talent-identification scheme have been of its setbacks. Also, comparing the patterns shows that the most important principle of talent-identification scheme in designated countries are cooperation with the institutional sport, continuity of the talent-identification scheme, and supporting and training the elite athletes to help them reach the championship.

Key Words: talent, talent-identification model, talent-choosing, track and field.

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INTRODUCTION

There are a few important factors to achieve success in competitive sports, one of which is identifying natural talent in people (1). Early identification of susceptible individuals is the most influential factor in competitive sports (2). Sportive talent-identification is a continuous process which is closely related to growth factors and maturity of people. It is not possible to identify the individual's right talent and fittest sport for them at any point in time, but each person's talent must be known and guided in the sportive period with an emphasis on a three-step process (identification, selection, and training) (3, 4). Selecting and guiding the athlete properly is one of talent-identification's perks which results in a great deal of frugality in using resources including time, trainer's energy, and expenses which gradually increase and also includes the lifetime, energy, and social investments of the very athlete (5).

Researches respond to the question if we really need a talent-identification model for the elite athletes and show that in order to avoid any duplication and wasting of resources and to use proper approaches to guarantee the success of the talent-identification schemes which will be executed in the future, we need to apply the native schemes (6).

"Track and field" (or Athletics) is one the sports considered to be the basic or the mother of all sports (7, 8). Given the diversity and comprehensiveness of track and field which has more than 47 separate championships (24 ones for men and 23 ones for women) in the Olympic (9, 10), every country can win a lot of medals by taking this sport seriously (11). Over many years, identifying sportive talents early in young people have become increasingly important since the significance of its competitions at different levels increased and the quality of athletes' performances improved. This has led to the phenomenon of talent-identification in track and field as a success factor in achieving better results and making early, astonishing records (12).

Some of the researches state that the talented individual must be identified at the right time and be supported continuously so that they can achieve high levels of sportive performance (13, 14). Hence, alongside identifying talented people, the most important matter is to support, keep, and train them in track and field, the people who leave track and field and sport due to different reasons after a while or get attracted to other sports (15). Therefore, needing a regular model which covers from identifying a talented individual to achieving championship platforms is of high importance. So, given the significance of track and field and the number of the many medals on the one hand, and lack of fieldwork research on the other hand, the present paper tries to study track-and-field talent-identification model in Iran and some designated countries as well as studying the results of executing this scheme in Iran and the forthcoming challenges.

MATERIALS AND METHODS

This research is the kind of reviewing and it was done according to librarian studies and over viewing essays, Theses and presence of books.

Subject. We reviewed Talent-identification models of track and field in the Russia (Soviet Union), the Germany (former East Germany), China, Australia, Romania, Italy, USA, England, Hungary, Canada, Japan, Qatar, Malaysia, and Iran.

MODELS IN DESIGNATED COUNTRIES
Russia (Soviet Union)

"Peltola" believes that one of the most complicated methods of talent-identification belongs to the Soviet Union with three steps in a way that the following chosen

individuals between different steps were trained under the supervision of special sport teachers and qualified trainers (7).

Figure 1 is a model presented by "Jarver" in 1981 to identify talented individuals in the Soviet Union. This model applied three steps to identify talented individuals for each field in athletics. The first step of the Soviet's track-and-field talent-identification model is called basic selection step whose purpose was to identify the talented individuals bearing an innate talent in athletics. In this step, skill abilities and general fitness of thousands of children between the ages of 8 and 10 were evaluated by some of PE trainers who had passed the necessary educations (15).

Fig1. Talent-identification model in the Russia (Soviet Union) over a period of 4 to 5 years
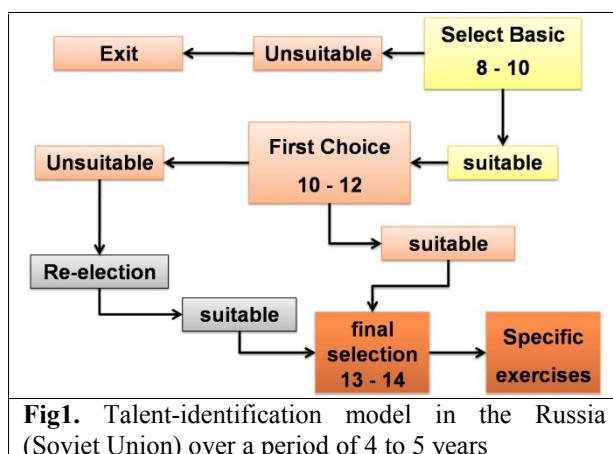
The second step was the initial selection step. In this step, 10-to-12-year-old trainees were evaluated based on their progress in physical activities and special tests. Since some of the researchers believed that forecast for the specialized field would not be valid at the ages of 10 to 12, becoming an expert in a field of the athletics was not a case in this step. Some of the trainees were crossed out in this step, but they would have participated in the talent-identification model, in case they had progressed in a period of one year. The third step in the Soviet's talent-identification model was

called the selection step. In this step which was carried out at the ages of 13 and 14 the trainees whose capacities had become confirmed started becoming experts in some fields of the athletics (15). In this model, identifying and training sportive talents were done based on a comprehensive scheme in which schools played a major role.

Germany (Former East Germany)

The talent-identification model in the Former East Germany was of high structural and organizational levels. The main axis of these programs included mandatory physical education in schools, initial identification of talented sportive individuals, and the club system for talented individuals in separate sports. Also, these programs took constant selection and deletion of individuals who didn't fit the sizes and indices in each step, and teaching and training the elite individuals were done through scientific approaches. The designated schools were required to support identifying talented individuals and introduce them to the educational centers so that almost 2000 centers were to be considered for almost 70000 young athletes. Moreover, there was a system by which the sportive schools for the youth joined a sport club which taught only a special sport based on its hierarchy of learning. Plus, about 10000 full-time trainers were working in these centers. The competitions of each age group were held separately and major funding with necessary equipment had been provided (16).

"Peltola" considers the Former East Germany's talent-identification model to have two steps. The first step is a general one. In this step, the structure and physical ability was measured as a part of syllabus for the children at the age of 9 and 10, and after collecting the required information, students were guided toward proper sports based on the results of the tests. The second step was of a more specialized aspect. In this step which lasted almost 6 months, different tests

were conducted. Using the results of the tests, the children were directed toward the specialized sports (17).
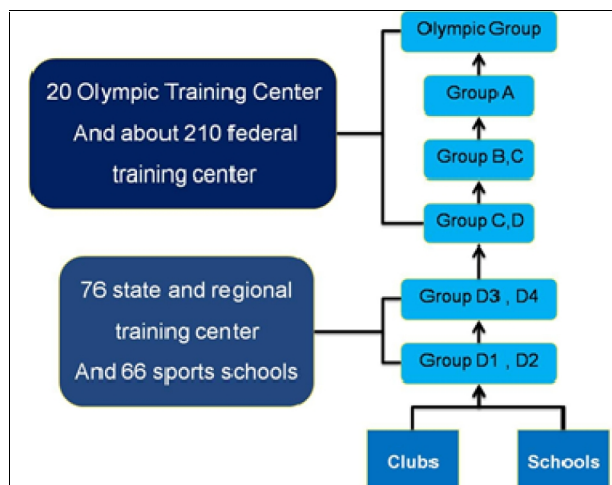
Fig2. Talent-identification model in the Former East Germany

China

China's athletics talent-identification model was codified in 1985, being a four-step process by which many youth of 11 to 13 participated in entertaining activities based on their interests. Then, at the ages of 14 to 16 and considering to genetics, they were put to many different tests like anthropometric, physical-fitness, and X-ray tests so that the talented ones were picked. At the ages of 17 to 18, the specialized tests for each field of athletics were conducted, and talented individuals were chosen and put under special trainings (1, 14, 17). In China's model, the coordination of education and training including sportive schools, physical education high schools, and sport junior colleges with sport organizational plays a major role (18). "Peltola" states on talent-identification in China, "China has a thorough system to identify the talents, which is closely coordinated with the educational programs, and the responsibility of expanding the talents is taken by professional trainers like in the Former East Germany."
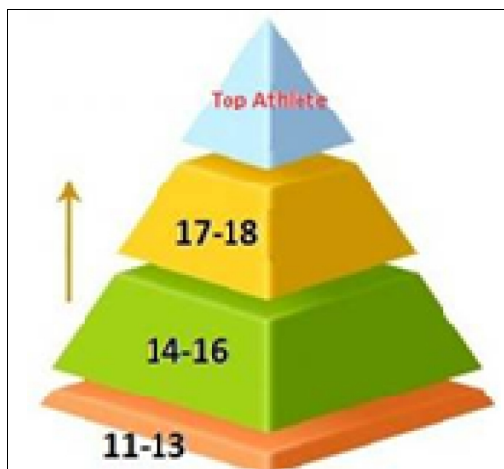
**Fig3.** Talent-identification model in China

Australia

In Australia's talent-identification model, the tests to identify the talented individuals were conducted in two steps. In the first step, some simple tests were conducted by the PE school teachers to evaluate physical ability and health of the adolescents at the ages of 12 to 16, and then the state centers professionals invite the talented individuals to participate in the second step after analyzing the results of the tests in the first step. In the second step, the specialized tests and advanced scientific equipment were used more, and the most talented individuals were picked for different fields of athletics based on the findings (15).

In the research he was studying Australia's talent-identification method, "Oki" stated, "After the weak performance of the Australian athletes in the Olympics and World Championships in the 1970's and early 1980's, Australia's championship league decided to implement the developmental sport programs for the youth" (19).

The main purposes of this model included employing talents along with training good trainers, providing enough provisions, collecting useful and necessary information, holding national and international

competitions for the prominent athletes to gain sportive experiences, enhancing sport education standards in schools, encouraging students to take part in sportive activities, rewarding the athletes with spiritual and material rewards in order to decrease the number of the athletes who quit athletics and increase the skill level amongst the Australian athletes constantly (18).

**Fig4.** Sportive talent-identification model in Australia
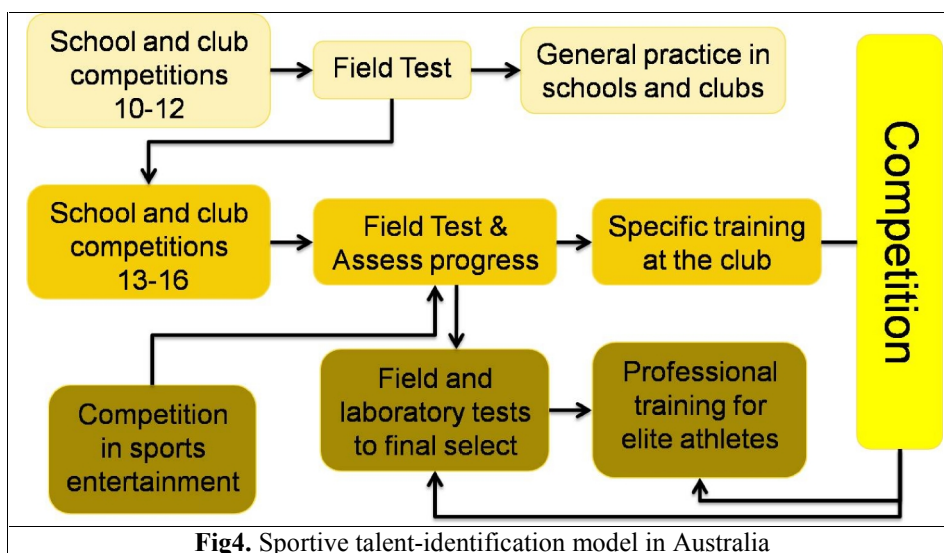
Romania

A group of scientists and boating experts in Romania in 1976 selected some young girls to take part in the boating competitions. At first, they chose at least 100 girls out of 2700 individuals. In 1978, this group of 100 was decreased to 25 individuals and most of them formed the Romanian national team to participate in Moscow's Olympics. This action led to one gold medal, one silver, and two bronze ones. Another group was picked in the late 1970's. They won five gold medals and a silver one in Los Angles' Olympics in 1984 and nine medals in Seoul's Olympics in 1988.

Italy

In Italy, sportive events start at schools and clubs, and they continue in provincial, regional, and country departments (18). Paying attention to school sports is of prominent features in this model, too.

Fig5. Talent-identification model in Italy
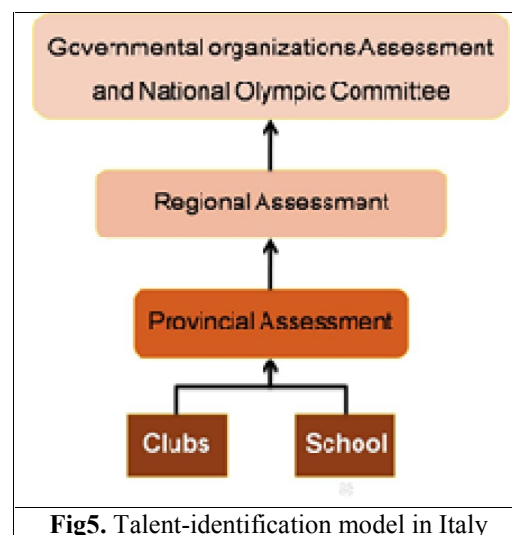
United States of America

Talent-identification does not exist cinematically in the United States of America, while it is done more at random and based on people's interest and inclination (18). In a meeting on talent-identification in 1999, "Gambetta" stated

that America had never had a codified and formalized talent-identification system. He believes that all sports require the use of the talent-identification system, because it is crucial for the movement models to advance properly at low ages (19). "Malina", as the director of America's Youth Sports Institutions, considers reaching an elite level in sport to be very complicated and suggests the timely selection and talent-identification of the youth as the only solution for America to succeed (18).

"Hanson" did a research on talent-identification methods in America. He stated that although talent-identification in most sports is done through the presence of the majority of athletes in competitions and based on the natural process of selection, the following options should be taken into account in selecting talented individuals (19):

- Developing methods to identify the youth bearing the potential power to perform high-level skills
- Preparing valid and balanced statistical information to predict the performance level of individuals' future skills based on the results of the tests
- Preparing norm tables based on the scores of valid tests which can be the index for the performance of athletic skills
- Preparing a precise scientific approach to predict every athlete's potential power of skill in the most appropriate sport

  Preparing a data bank to analyze the results in the future.

England

In England, the Sports Ambassadors Scheme and the awarding system are applied as motivating factors for the participation in sport.

Fig6. Talent-identification model in England
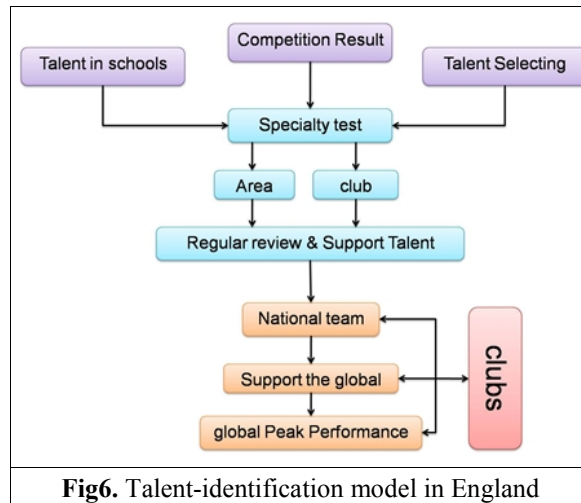
Hungary

Basically, there is no efficient and codified system of talent-identification for different sports in Hungary. Selecting talented individuals is an abstract selection, and it is never clarified which sport is really the most appropriate for the athletes (12).

Canada

In a research which he conducted on talent-identification in Canada in 1989, "Rassel" presented a theoretical model for it and stated a three-step regressive process from the discovery step to the sublimation of talent in this way: the first step is to discover the talent, which includes measurement in five realms of body measurement, physiological, perceptual - motor, psychological and environmental. The second step is to identify and select talents for participation in the regional and local teams by the use of specialized tests to choose the individuals. And, the third step is the final selection of the elite athletes in order to direct them to the peak of sports performance. "Mc. William" and "Landra", Canada's sports consultants in 1992, stated that the youth's talents were identified through institutional competitions at the time. They considered the financial incentives as very important factors for the

youth in sports like basketball and tennis. To them, the best talent-identification tests are the field tests. Although these tests seem to be simple, not only do they identify talents, but also they depict the progress (5, 18, 19).

Japan

"Matsu" from Japan, one of the pioneers in sports talent-identification, suggests body measurements, considering the movement speed, coarse upper body, high cardiac capacity, and the maximum oxygen consumption as the indicators for talent-identification (12, 18).

Qatar

Talent-identification programs in this country are based on observations on the streets, sports fields, the armed forces, and schools. This observation system is only practicable in a country of small population like Qatar (18, 19).

Malaysia

Talent-identification model in Malaysia is implemented in schools under the title of Elite Athletes Centers and an institute named "Sakan Nagara''. Talent-identification methods in this country are based on this belief that children below the age of 12 are supposed to participate in different sports activities, and the specialized tests to guide them in the appropriate sport are held after they turn 12 (18). In a study on talent-identification in Malaysia in 1994, "Moreland" concluded that there was a scheme called Athletes Recruitment in this country, and it had the responsibility of establishing special schools for sports to identify and train talented athletes as well as providing them with sports equipment. Talent-identification model was centralized in schools under the names of elite athletes due to lack of infrastructure in clubs. The selection criteria for these schools as a place for elite athletes are their facilities and equipment along with the presence of at least

one experienced expert in one sport. The selection criteria for the talented athletes are their competition results and their interests. The responsibility of controlling the elite athlete center is taken by researchers, experts, and scientists who design the initial tests. All information collected and stored for analysis is sent to the National Sports Council (17).

Iran

Studying the current status of athletics in Iran shows that much has not been done in talent-identifying (19). In the survey of the planning office of physical education and sport in 1374, some of the experts were sent to China, Cuba, and South Korea regarding how to run the athletics after identifying existing shortcomings. This led to prioritize creating staff bases for athletics. This staff turned to bases for athletics and club affairs in 1380 and started studying talent-identification in Iran through recruiting graduates. It finally led to publish standard talent-identification book in 10 sports including track and field (7).

In the research he conducted on the students and athletes of track and field in Iran, Hadavi (1379) inferred that talent-identification in Iran is more based on luck and the results of national championships at different ages. Also, he presented a model to discover and train the talents. Some features of this model are:

- Continuity of the implementation from elementary school in education to reach the national team level
- Using the results of competitions in two sections of institutional championship and national youth as a criterion for the selection of talented individuals
- Using the national championship information as a criterion to compare the characteristics of talented teens and adolescents (19).

In 1385, the talent-identification committee of the athletics federation started to plan and codify the national scheme in track and field with a strategic approach. This scheme was executed through different tests on seventeen thousands students of guidance school in 1387. After the talent-identification model had initiated operating, almost 500 elite recruits of 11 to 12 years old were chosen in different fields of athletics, but the scheme was left unfinished due to lack of lack of funding for continuing education to hold training camps for elite recruits and was cast to oblivion on account of changing the federation management (15).
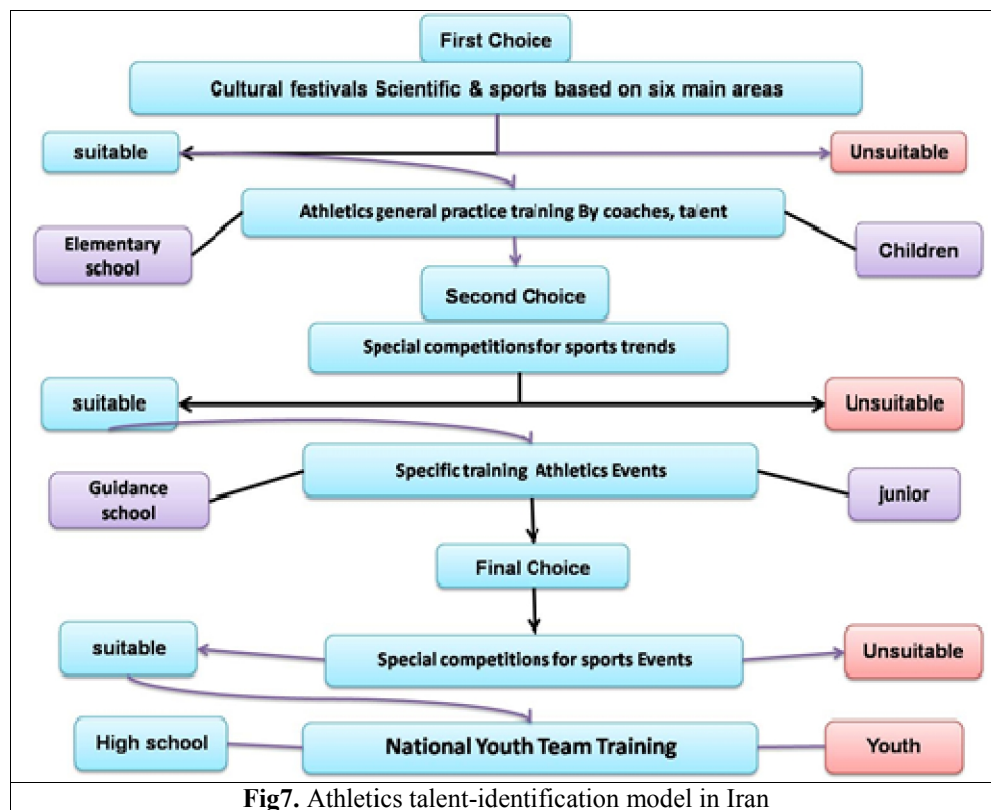

Fig7. Athletics talent-identification model in Iran

This practicable scheme shows that at first, the children of 11-12 years old enter the talent-identification process through calling at cultural, scientific, and sports festivals in the subsidiary provinces in each region and in the elementary schools. Data bank is collected during the registration so that an identification card is issued for everyone. Then, they enter the cultural, scientific, and sports festival after checking the number of qualified individuals and providing the necessary equipment of children to hold four tests of throwing, jumping, sprinting, and endurance. In this step, 10% of the best on the table are chosen based on body measurement and physical checking, then, they are introduced to the athletics federation to be supported and placed in the elementary level of training the talented individuals.

Keeping on, in addition to training the talented individuals under the supervision of the talent-identifier trainers of athletics boards for 2 years, the chosen ones of the elementary institutional competitions and national children's games are added to these

individuals. The secondary selection of the talented individuals at the ages of 13-14 is done through special competitions in order to determine the special orientation in track and field. In addition to doing different tests, the chosen ones are introduced to the federation in order to be supported and placed in the third step to which the chosen ones of the high-school institutional competitions and national youth's games are added, and the best ones are invited to be on the national youth team.

DISCUSSION and CONCLUSION

Studying the athletics talent-identification model in Iran shows that the required funding expenses has not been provided to benefit from the results of identifying the elite individuals due to the vastness of executing the mentioned model throughout the country. This led to the unfinished implementation of national talent-identification model due to lack of financial support after the implementation got started. Hence, it is recommended that the chosen individuals be supported by the athletics boards in provinces and cities, in addition to moderating the vastness on this model to province and even cities including two holding sections of the competitions by athletics boards. Executing this scheme needs the athletics boards and talent-identification committees to become more active, to change the traditional talent-identification methods to the modern local ones, presence of experienced trainers, to provide training space and basic educational equipment, and also interaction with sports teachers along with increasing their educational information in line with the fact that track and field is to be mandatory at the sixth grade. Moreover, comparing this model with those of the designated countries shows that the most important principle of those models is the continuity of the scheme and supporting the chosen individuals along with training them to become champion. In the second step of this model, the new chance is provided for talented recruits so that these individuals are not crossed out of the process by just participating it, because those who are crossed out in the first steps may be known as the elite athletes in near future.

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مروری کوتاه بر الگوهای استعدادیابی دو و میدانی ایران و چند کشور منتخب

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چکیده

استعدادیابی و پرورش ورزشکاران رده‌های پایه در دوومیدانی همانند هر سیستم دیگر نیازمند تدوین الگوی مناسبی است تا ضمن آگاهی از مسیر حرکت بتوان از هر گونه دوباره کاری اجتنــاب نمود. فدراسیون دوومیدانی در سال ۱۳۸۵ اقدام به تدوین طرح ملی استعدادیابی در رشته دوومیدانی نمود. از این رو تحقیق حاضر ضمن بررسی الگوهای استعدادیابی دوومیدانی در چند کشور برگزیده به مقایسه آن‌ها با الگوی استعدادیابی تدوین شده رشته دوومیدانی در ایران می‌پردازد. روش تحقیق حاضر به صورت مروری می‌باشد که الگوهای استعدادیابی دوومیدانی در کشورهائی نظیر روسیه (شوروی سابق)، آلمان (آلمان شرقی سابق)، چین، استرالیا، رومانی، ایتالیا، آمریکا، انگلستان، مجارستان، کانادا، ژاپن، قطر، مالزی و ایران بررسی شد. بررسی الگوی استعدادیابی دوومیدانی در ایران نشان می‌دهد که عدم وجود فرصت مجدد برای نوآموزان و همچنین عدم استمرار طرح عملیاتی استعدادیابی از دلایل ضعف آن بوده است. همچنین مقایسه الگوها نشان می‌دهد مهم‌ترین رکن الگوی استعدادیابی در کشورهای منتخب، همکاری با ورزش آموزشگاهی، تداوم طرح استعدادیابی و حمایت و پرورش افراد نخبه تا رسیدن به سکوی قهرمانی می‌باشد.

واژگان کلیدی: استعداد، مدل استعدادیابی، استعداد گزینی، دوومیدانی.

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