



Identifying Sports Talent in Fifth-Grade Students

Sumarni Berutu¹, Andi Nur Abady²

¹ Sekolah Tinggi Olahraga dan Kesehatan Bina Guna, Medan, Indonesia

² Sekolah Tinggi Olahraga dan Kesehatan Bina Guna, Medan, Indonesia

Corresponding Author: sumarniberutu698@gmail.com

Abstract

Objectives:

The objective of this study was to identify sports talent among 5th-grade students at SD Negeri 064011 Medan Deli.

Materials and Methods:

This study employed a descriptive method. The population and sample consisted of 5th-grade students at SD Negeri 064011 Medan Deli.

Results:

Based on the research findings, the following data were obtained regarding the sports talents of Grade V students at SD Negeri 064011 Medan Deli: (1) Table tennis: 8 talented students (27%); (2) Diving: 8 talented students (27%); (3) Floor gymnastics: 5 talented students (16%); (4) Sprinting: 5 talented students (16%); and (5) Trampolining: 4 talented students (13%).

Conclusions:

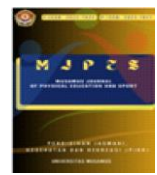
Based on the results of data analysis through talent identification tests and measurements in various sports among students at SD Negeri 064011 Medan Deli in 2026, it can be concluded that 8 students showed talent in table tennis, 8 students in diving, 5 students in floor gymnastics, 5 students in sprinting, and 4 students in trampoline.

Keywords: sports talent identification; fifth-grade students; elementary school; physical fitness; motor skills

Introduction

In today's highly competitive and rapidly developing sports environment, an athlete's success is determined not only by enthusiasm and determination but also by a series of training procedures implemented methodically, systematically, and continuously. A well-structured set of training procedures is a fundamental factor and a major contributor to the achievement of high performance in various sports. However, it should be understood that without athletes who possess talent and skilled abilities in a particular sport, even a well-structured training program will not be able to achieve the highest level of success expected. Therefore, the process of talent selection and identification is crucial in determining the future success of sports development. Athletes with exceptional abilities and promising potential must be selected through appropriate, accurate, and measurable strategies or procedures so that performance enhancement efforts can be carried out optimally. This selection process is not a simple task but requires a scientific approach involving various aspects of measurement, observation, and in-depth analysis of the physical, mental, and technical characteristics of prospective athletes. Only through such a comprehensive approach can sports talent development be implemented effectively and efficiently.

Peak athletic performance in a competitive match or tournament is referred to as sports achievement, as explained by M. Furqon in his work published in 2005, page 8. Sports achievement is a concrete manifestation of the long and demanding development process experienced by an athlete. Such success does not occur instantly but is achieved after athletes undergo various intensive training procedures, continuous assessment, and significant sacrifices of time and energy.



This process involves programmed physical training, the development of strong mental qualities, and the improvement of specific techniques according to the sport in which the athlete participates. When discussing sports talent development procedures, whether implemented on a large scale or through focused talent identification programs, the ultimate goal remains the same: to achieve the maximum potential performance of each individual being developed. This process requires long-term commitment from various parties, including coaches, sports administrators, the government, the athletes themselves, and their families.

The process of searching for and discovering individuals who have the potential to achieve a certain level of sports performance in the future is referred to as athlete talent scouting. This is a very important initial step in the development of high-performance sports. The first step in the talent scouting process is to identify potential candidates from various sources, including schools, sports clubs, and community sports activities. Once potential candidates have been identified, the next step is to develop them through structured and systematic training programs.

Talent identification is a systematic process aimed at finding individuals who have the potential to excel and achieve high performance in sports. This process involves a series of tests, measurements, observations, and evaluations designed to reveal an individual's basic abilities in important aspects of sports, such as speed, agility, strength, endurance, coordination, and technical skills. The primary objective of talent identification is to determine whether these individuals will be able to reach their full potential through appropriate training and ultimately achieve peak performance at the national and international levels.

Talent identification can be defined as the process of determining an individual's potential for success in training by estimating the likelihood of achieving a certain level of performance in the future. This process requires the expertise and experience of talent identifiers who understand the specific characteristics and requirements of each sport. They must be able to assess not only an individual's current physical condition but also their potential for future development.

Scientifically, talent is associated with the combination of genetic characteristics inherited from both the father and mother, representing intrinsic factors that are present from birth or involving specific genetic characteristics. In reality, many aspects of an individual's development are influenced by characteristics possessed from birth. Genetic aspects such as muscle fiber composition, arm-to-body ratio, lung capacity, and various other physical characteristics can be inherited and are relatively difficult to change through training alone.

If a family has three children, it is likely that the three children may display certain similar personality characteristics. This may occur because personality traits are associated with characteristics inherited genetically from both parents. Nevertheless, genetic factors are not the only determinants of success. Environmental factors, stimulation, and training also play highly significant roles in realizing and developing an individual's potential.

Talent and intelligence can be academic or non-academic. Examples of academic talent include exceptional abilities in mathematics, science, or languages, while non-academic talent includes skills in the arts, music, or sports. Talent and intelligence may also be interrelated and mutually reinforce one another. This is closely connected to the actualization or emergence of such skills later in life. In other words, a newborn may possess certain qualities related to sports in the form of genetic potential. However, these talents will not emerge or develop into actual achievement if they are never stimulated, activated, and optimally developed through an appropriate development program.

Among the districts located in the Medan area is Medan Deli District. This district is one of the administrative areas with potential for sports development, but it also faces several



significant challenges. One of the main challenges hindering the development of sports achievement in the district is the lack of adequate coaching personnel. Coaches are responsible for providing training in various sports and play a key role in the development of young athletes.

In terms of infrastructure, Medan Deli District is actually equipped with relatively adequate facilities and infrastructure for sports activities. The area has several facilities owned by plantation companies located around the district that can be utilized for sports development. These facilities include football fields, volleyball courts, badminton courts, and sepak takraw courts, among other sports facilities.

The availability of these facilities should provide a strong foundation for sports development in the area. Nevertheless, the existing facilities and infrastructure in the district have not been utilized effectively and have received insufficient attention from the relevant administrative authorities. This condition indicates a gap between the available resources and the implementation of sports development programs that should be carried out. As a result of these conditions, the development of athletic potential has not progressed as expected, particularly among young people who should become the next generation of high-performing athletes.

Considering these conditions, it is highly important to initiate sports development among children, particularly through the educational system, where children naturally gather every day. Schools are strategic places for identifying and developing sports talent because children spend a significant portion of their time there and participate in various physical activities. One of the schools located in Medan Deli District is SD Negeri 064011 Medan Deli. This school is an interesting location for further investigation regarding sports talent development. Based on observations conducted at the school, SD Negeri 064011 Medan Deli does not provide adequate opportunities for students to develop their athletic abilities optimally. This condition can be identified from the absence of additional classes or structured sports extracurricular activities at the school.

In fact, extracurricular activities serve as an important platform for students to explore and develop their talents outside regular academic learning hours. This talent development program is necessary to ensure that students' talents can develop optimally and are not wasted. To encourage sports talent and the sustainable development of students' abilities, it is important to establish close cooperation between schools and researchers in the area. Such cooperation will enable the continued development of identified talents in the future, either through extracurricular activities at school or through sports clubs located around the school or elsewhere in Medan.

Materials and Methods

Study Design

This study employs a descriptive research method. Descriptive research is conducted to determine the value of one or more independent variables without making comparisons or establishing connections with other variables. This study aims to describe data regarding the giftedness of fifth-grade students at SD Negeri 064011 Medan Deli.

Study Participants

The population of this study consists of all students in classes VA and VB at SD Negeri 064011 Medan Deli. Purposive sampling was employed as the sampling technique, resulting in a sample size of 30 students.

Study Organization

The research instrument used the Sport Search test and measurement technique to identify students' sports talents. The instrument consisted of several tests measuring anthropometric characteristics, coordination, strength, explosive power, agility, speed, and endurance, including height, sitting height, body weight, arm span, tennis ball throw-and-catch, basketball throw, vertical jump, agility run, 40-meter sprint, and multistage



shuttle run (bleep test). Each test was conducted according to predetermined procedures, equipment requirements, and scoring criteria, preceded by equipment preparation, checking the students' health conditions, participant organization, appropriate sportswear, and warm-up activities.

Statistical Analysis

After all data were collected, the sports talent identification data were analyzed using the Sport Search software by entering the participants' personal information and characteristics, including name, domicile, gender, age, height, sitting height, body weight, arm span, and the results of the tennis ball throw-and-catch, basketball throw, vertical jump, agility, 40-meter sprint, and shuttle run tests. The data were then processed by the software to generate a Fitness and Skill Profile in the form of a bar chart. The results were subsequently used to determine the Overall Top 10 Sport, which represents the sports that correspond to each participant's fitness and skill profile.

Results

This study employed a descriptive research design aimed at identifying sports talent among male and female students at SD Negeri 064011 Medan Deli. To identify the sports talent of the students at SD Negeri 064011 Medan Deli, tests and measurements using the Sport Search method were conducted. The research results presented are based on data analysis processed using Sport Search software. The variable measured in this study was sports talent, which consisted of ten (10) test items: height, sitting height, body weight, arm span, tennis ball throw and catch, basketball throw, vertical jump, agility run, 40-meter sprint, and multistage fitness test.

The following presents a description of the research data obtained from the sports talent tests and measurements conducted among the students of SD Negeri 064011 Medan Deli:

Table 1. Description of Test and Measurement Data of Male Students

No.	Test Item	Lowest Score	Highest Score
1.	Height	132	150
2.	Sitting Height	69	85
3.	Weight	22	60
4.	Arm Span	132	165
5.	Throw and Catch a Tennis Ball	5	17
6.	Throw a Basketball	2,9	5,71
7.	Upright Jump	25	48
8.	Running Skills	10,01	15,50
9.	40 meter sprint	6,50	8,22
10.	Multistage running	2.2	2.5

Table 2. Description of Test and Measurement Data for Female Students

No.	Test Item	Lowest Score	Highest Score
1.	Height	131	148
2.	Sitting Height	67	80
3.	Weight	28	47
4.	Arm Span	132	148
5.	Throw and Catch a Tennis Ball	3	14
6.	Throw a Basketball	2,45	4,2
7.	Upright Jump	19	33
8.	Running Skills	13,00	15,20
9.	40 meter sprint	7,00	8,20
10.	Multistage running	1.7	2.1



Discussion

Efforts to achieve success in sports are highly complex because they involve various factors, including internal and external factors. Internal factors originate from the athlete's own qualities. A talented athlete is one who possesses sporting abilities that can be developed to achieve peak performance.

Every student naturally possesses certain talents in particular sports. Sporting talent among students can be identified through the Sport Search tests and measurements, which consist of ten test items: height, sitting height, body weight, arm span, tennis ball throw-and-catch test, basketball throw, vertical jump, agility, 40-meter sprint, and multistage fitness test.

After all ten data items were collected, they were analyzed using Sport Search software. The results showed that among 30 fifth-grade students at SD Negeri 064011 Medan Deli in 2026, sporting talent was identified in five sports. The identified sports were as follows:

1. Table Tennis: Eight students were identified as talented, representing 27%.
2. Diving: Eight students were identified as talented, representing 27%.
3. Gymnastics (Floor Exercise): Five students were identified as talented, representing 16%.
4. Sprint Running: Five students were identified as talented, representing 16%.
5. Trampolining: Four students were identified as talented, representing 13%.

Based on the data analysis of students' sporting talents at SD Negeri 064011 Medan Deli in 2026, many students were found to possess talent in various sports. However, the most prominent talents were in table tennis and diving, which had the highest percentages. According to the theoretical review of the factors influencing talent development by Fatimah (2010:73), talent development is influenced by the child themselves and their environment.

Child related factors can influence talent development. For example, students at SD Negeri 064011 Medan Deli commonly engage in activities such as gymnastics, exercise, running, playing baseball, skipping rope, playing marbles, playing pecah piring, and climbing. These activities can unconsciously improve agility, explosive power, and hand eye coordination, which are essential for movements in table tennis, floor gymnastics, trampolining, and sprint running.

In addition, the environment surrounding the school also contributes to the development of children's talents. For instance, the presence of rivers, streams, and ponds near the school provides opportunities for children to engage in diving activities. Unconsciously, these activities may influence the growth and development of the diving talent possessed by the students.

The physical characteristics required in table tennis, diving, floor gymnastics, trampolining, and sprint running are as follows. According to Mutohir (2017:9), body weight influences performance in several sports. Certain sports require individuals with a relatively light body weight, such as gymnastics, whereas throwing events in athletics require athletes with greater body weight. Mutohir (1997:10) states that arm span is a factor influencing performance in several sports. For example, in swimming, longer arms can provide an advantage in achieving better performance. Mutohir (2017:10) also explains that hand eye coordination is required in many sports, including tennis, taekwondo, and badminton.

Furthermore, according to the Sport Search software explanation, table tennis helps develop ball-game skills and requires good reflexes, agility, and physical fitness. Diving requires a high level of flexibility, body awareness, and leg power. In general, floor



gymnastics requires strength, coordination, flexibility, and balance to varying degrees, depending on the type of movement performed.

According to the Sport Search software explanation, trampolining can be enjoyed both recreationally and competitively. As a competitive sport, it combines skill, agility, flexibility, reflexes, style, and aesthetic movement. Some of its skills include triple somersaults, double twists, and double somersaults with two or three twists. Athletes rotate around two axes simultaneously at a height of approximately 15 to 20 meters above the trampoline bed, performing these movements in approximately 1.7 seconds. Finally, according to the Sport Search software explanation, sprint running requires speed. Speed is the most important factor, although starting technique and running technique are also essential.

Conclusions

Based on the results of data analysis through talent identification tests and measurements in various sports among students at SD Negeri 064011 Medan Deli in 2026, it can be concluded that 8 students showed talent in table tennis, 8 students in diving, 5 students in floor gymnastics, 5 students in sprinting, and 4 students in trampoline.

Acknowledgments

The author extends their gratitude to SD Negeri 064011 Medan Deli and Bina Guna College of Sports and Health, as well as the researchers and writers who participated in and supported this research activity.

Conflict of Interest

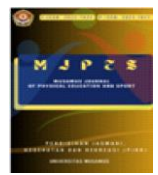
The authors declare no conflict of interest.

Funding

This research received no external funding.

References

- Bompa, Tudor O. (2014). *Theory And Methodology Of Training*. Dubuque IOWA. Kendal/Hunt Publishing Company.
- D. Gunarsa, Singgih. Dkk (2016). *Psikologi Olahraga Teori Dan Praktek*. Jakarta: PT BPK Gunung Mulia.
- Fatimah, Enung (2020). *Psikologi Perkembangan (Perkembangan Peserta Didik)*. Bandung: CV Pustaka Setia.
- Furqon H, M. (2025). *Pembangunan Olahraga Bagian Integral Dari Pembangunan Bangsa..* Universitas Sebelas Maret. Surakarta.
- Furqon H, M. (2020). *Teori Umum Latihan*. Institut Nasional Lagos. Pan African Press LTD. Lagos (Terjemahan).
- Harsono (2020). *Coaching dan Aspek-Aspek Psikologis Dalam Coaching*. Jakarta
- Haryono, Sri (2023). *Pemanduan Bakat, Minat dan Potensi Olahraga dengan Sport Search Software*.
- Liwijaya, Kathleen K, dan Kuntaraf, Jonathan (2022). *Olahraga Sumber Kesehatan*. Bandung: Advend Indonesia.
- Ma'mun, A. (2020). *Perspektif Kebijakan Pembinaan Prestasi Olahraga Nasional*. Bandung: CV. Bintang Warliartika
- Mutohir, T. C. (2017). *Penerapan IPTEK Dalam Pemanduan Dan Pengembangan Bakat Olahraga Mencapai Prestasi Pucak*.



Soetjiningsih, Christiana H. (2022). Seri Psikologi Perkembangan. Perkembangan Anak Sejak Pembuahan Sampai Dengan Kanak-Kanak Akhir. Jakarta: Prenada Media Group.

Sugiyono (2020). Metode Penelitian Kuantitatif Kualitatif Dan R & D. Bandung: Alfabeta.

Tower Hamlets (2016/2017). Sport Search. Health and Physical Activity Report. London: Town Hall