

STUDY ON THE RESULTS' PROGRESS TENDENCY OVER THE LAST FIVE YEARS AT THE 1500M BOYS SPEED SKATING EVENT

Marius VAIDA¹

Abstract

The main objective of this study was to carry out a study to highlight the tendency of the results of the last five years, in the 1500 m boys' event. The correct perception of the results evaluation in top competitions can help us understand the phenomenon that's being researched, the adaptation of various factors influencing sports performance to these tendencies being considered to be of major importance in achieving better results for speed skating. This research was carried out on the basis of the results achieved during World Championships over the last 5 years, with the first 5 performances being presented at each competition level, complemented by the World Record. The data shows that three out of the four times achieved in the 1500 m boys World Record event are higher than all times obtained by the first 5 athletes of the mentioned competitions except the last time which is lower than that obtained in 2020 by the third ranked athlete. It can also be noted that in general, the first-ranked one performs best during the test mentioned, with a large majority of intermediary times, with exceptions for each of these times. Good physical training complemented by race strategy tailored to the skills of each sportsman is the key to success in speed skating. Increasing awareness of sport in countries that do not have a very old tradition can lead up to an increase in the number of sportspeople entitled to various sports clubs, resulting in an increased competition by categories and thus increased sport performances.

Keywords: study, speed skating, results, boys

JEL classification: I0, L83

DOI: 10.24818/mrt.21.13.01.03

1. Introduction

Although the skating's appearance cannot be precisely dated, there are researchers who have studied this topic concluding that the origins of skating are in Scandinavia or in Russia. The skating process evolved in every aspect, from the skating shoes themselves, which at first were only two wooden boards attached under one's feet, to the technique, which evolved a great amount, and here we can even talk about calculating angles between segments, center of gravity etc.

¹ Marius Vaida, Petroleum and Gas University of Ploiești, Romania, vaidamarius@yahoo.com



The evolution of sports materials, training methods, biomechanics, etc. has led to the evolution of speed skating, leading to the achievement of times that were not considered possible a few years ago.

Mandella A. (2000, pg.78) pointed out that the search for talented elements for the various existing sports branches should be carried out by means of quite simple strategies that can help to discover talented young people. These identification strategies are after Mandella A. (2000, pg.79) the following:

- "discovery at first glance;
- prima facie experience,
- the actual performance of the selection contest;
- comparison with related tests and reference models specific to the sports branch concerned;
- longitudinal analysis of the pace of development."

E. Hahn (1996, pg 109-111) mentions that sport talent is conditioned by a number of factors I mention: anthropometrics, technical-motor skills (balance capacity, spatio-temporal capacity, etc), physical characteristics (aerobic and anaerobic resistance, force, speed, endurance of dynamic and static strength, etc), mental control (motric intelligence, concentration, etc), learning capacity (observation capacity, creativity, etc), emotional factors (ability to overcome stress, mental stability, etc), predisposition to performance and social conditions.

As known, the training in speed skating is based on the relationship between fatigue and recovery. Successive cycles of effort-tiring training ultimately lead to a somewhat gradual increase in athletes' performance, having a particular role in the emergence of good and very good results and the recovery process. The various quantitative, qualitative and recovery accumulations serve as a basis for the progress of future speed skating sportspeople, and performance is also relevant to this.

2. Research purpose and objectives

The main objective of this research was to carry out a study in order to highlight the tendency of the results achieved during the last five years, in the 1500 m boys' event.

The correct perception on the evolution of results in top competitions can help us understand the phenomenon that's being researched, the adaptation of the various factors influencing sports performance to these tendencies being considered to be of major importance in achieving better results for speed skating.

3. Research methods

This research was carried out on the basis of the results obtained at the World Championships as follows: ISU World Championships 2021 Thialf / Heerenveen (NED), ISU World Single Distance Championships 2020 Salt Lake City (USA), ISU World Single Distance Championships 2019 Inzell (GER), ISU World Allround



Speed Skating Championships 2018 Amsterdam (NED) and ISU World Single Distances Championships 2017 Gangneung (KOR).

The top 5 performances were presented at each of the above-mentioned competitions, complemented by the world record.

The proposed study is based on the following methods: graphic method, documentation method and comparing method.

4. Results and discussion

The data presented in the tables and graphs below include both the final times of the first 5 athletes and the intermediate times and even the times of each round of the 1500m boys' event in the above-mentioned competitions.

Values of the final and intermediate times of the World Record

Table 1

<i>Boys</i>		
	Lap	Time
1	22.9	22.91
2	24.2	47.18
3	25.2	1:12.38
4	27.7	1:40.17
Final		1:40.17

Values of final and intermediate times obtained in the year 2021

Table 2

Boys					
Time	1st place	2nd place	3rd place	4th place	5th place
1	23.23	23.56	23.79	24.44	23.88
2	48.39	48.88	50.20	50.61	50.27
3	1:14.94	1:15.43	1:17.54	1:17.69	1:17.50
4	1:43.74	1:44.10	1:45.48	1:45.50	1:45.67
Final	1:43.752	1:44.110	1:45.493	1:45.514	1:45.681

Values of final and intermediate times obtained in the year 2020

Table 3

Boys					
Time	1st place	2nd place	3rd place	4th place	5th place
1	23.38	23.22	23.40	23.58	23.54
2	48.32	48.03	48.71	48.84	48.59
3	1:14.09	1:14.19	1:14.98	1:14.69	1:14.66
4	1:41.65	1:41.72	1:42.16	1:42.32	1:42.34
Final	1:41.664	1:41.735	1:42.164	1:42.333	1:42.347



Values of final and intermediate times obtained in the year 2019

Table 4

Boys					
Time	1st place	2nd place	3rd place	4th place	5th place
1	23.20	23.73	23.46	24.06	23.39
2	48.17	49.46	48.98	50.02	48.58
3	1:14.43	1:15.88	1:15.56	1:16.33	1:14.76
4	1:42.58	1:43.16	1:43.20	1:43.54	1:43.60
Final	1:42.582	1:43.160	1:43.202	1:43.540	1:43.604

Values of final and intermediate times obtained in the year 2018

Table 5

Boys					
Time	1st place	2nd place	3rd place	4th place	5th place
1	24.37	24.20	24.29	24.89	24.33
2	51.34	51.41	51.04	52.19	51.93
3	1:19.26	1:19.88	1:19.57	1:20.72	1:20.63
4	1:48.33	1:49.87	1:49.97	1:50.33	1:50.62
Final	1:48.33	1:49.87	1:49.97	1:50.33	1:50.62

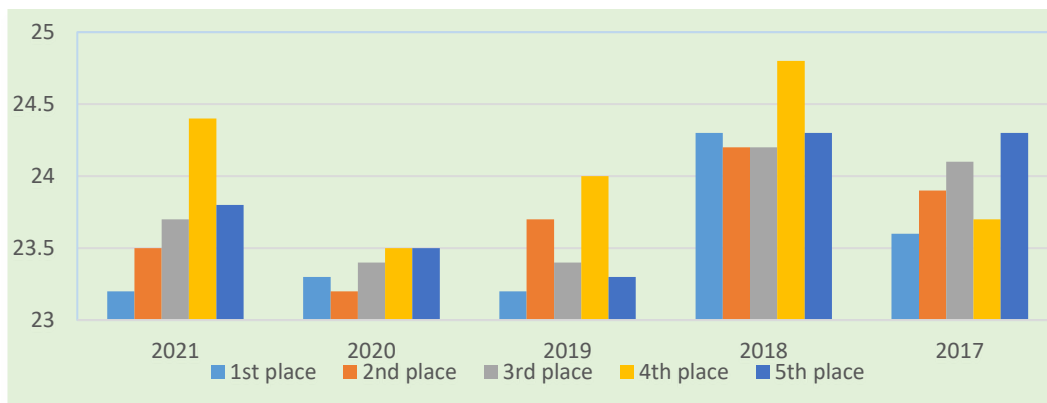
Values of final and intermediate times obtained in the year 2017

Table 6

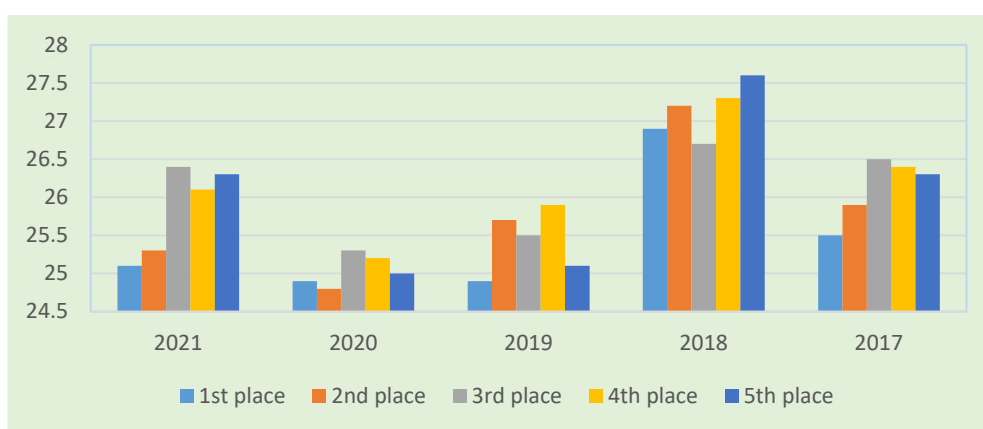
Boys					
Time	1st place	2nd place	3rd place	4th place	5th place
1	23.63	23.90	24.10	23.77	24.36
2	49.16	49.82	50.69	50.24	50.68
3	1:15.77	1:16.71	1:18.04	1:17.10	1:17.82
4	1:44.36	1:44.67	1:45.50	1:45.79	1:46.05
Final	1:44.360	1:44.670	1:45.500	1:45.790	1:46.050



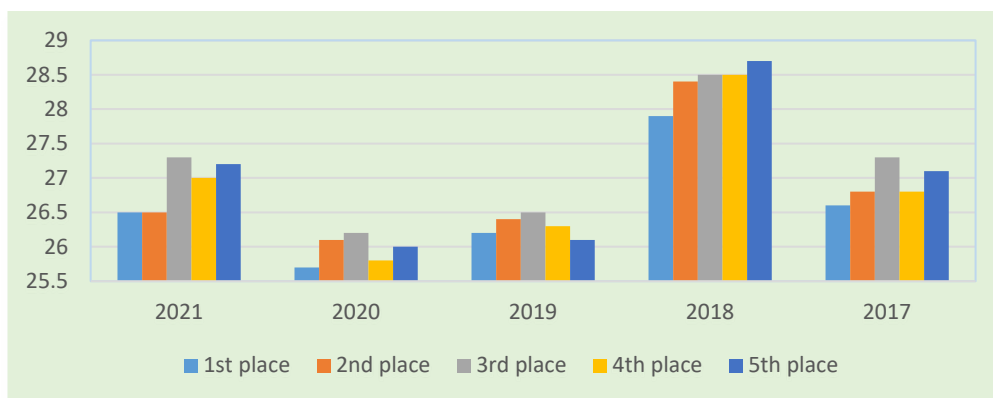
Graph 1. The value of the time per lap- WR



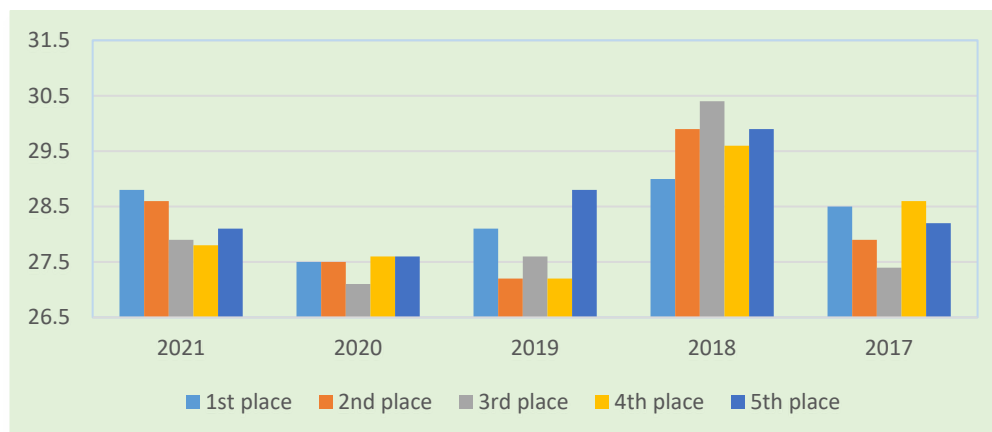
Graph 2. The value of time per lap - value 1



Graph 3. The value of time per lap - value 2



Graph 4. The value of time per lap - value 3



Graph 5. The value of time per lap - value 4

If we look at the values achieved in the first tour segment it can be seen that the first ranked tour has the best results (with equal values in 2019 and 2021) in the years 2017, 2019 and 2021, compared to 2018 and 2020 where the second-ranked in 2020 and the second and third-ranked sportsmen in 2018 achieved the best results. The difference between the best results, which is 23,2 sec, and the world record is 0,3 sec in favor of the latter.

Looking at the evolution of the first full tour it can be seen that the best result was achieved in 2020 by the second-ranked sportsmen, the rest of the years being characterized by higher first-ranked results (2021, 2019 and 2017) except for 2018 where the best result of the tour is found to be achieved by the 3r-ranked. The difference between the best result achieved during this tour (24,8 sec) and the world record is 0,6 sec in favor of the last mentioned.

The data of the second full tour shows that the best result was achieved in 2020, with the value of 25,7 sec compared to the one from the world record where the value was 25,2 sec. The first-ranked man achieved the best results in 2017, 2018, 2020 and 2021 where it is noted that the first two had the same results. The year 2019 is characterized by the fastest tour of the 5th place.

The third full tour is characterized by surprising values meaning that the first ranked was the fastest in 2018 and 2020, with lower results during the other years, with the highest difference being 1,1 sec in 2017. The best result of this tour was 27,1 sec in 2020, a value achieved by the third-ranked athlete. Compared to the worldwide record tour, it is found to be higher in 2020, with a 27,7 sec. tour record value.



5. Conclusions

The data shows that three out of the four times achieved in the 1500 m boys World Record event are higher than all times obtained by the first 5 athletes of the mentioned competitions except the last time which is lower than that obtained in 2020 by the third ranked athlete.

It can also be noted that in general, the first-ranked one performs best during the test mentioned, with a large majority of intermediary times, with exceptions for each of these times. Good physical training complemented by race strategy tailored to the skills of each sportsman is the key to success in speed skating.

Increasing awareness of sport in countries that do not have a strong tradition can lead up to an increase in the number of sportspeople entitled to various sports clubs, resulting in an increased competition by categories and thus increased sport performances.

It is noted that when comparing the data obtained with the world record, if there is a relative balance between the first three times recorded, with an average of 24,1 seconds, then the results are higher than the current level of the main results achieved in international competitions.

It is also noted that the best results were achieved in 2020, with the natural evolution of results being interrupted by the SARS-COV-2 pandemic, with athletes regressing in performance by limited training (specific but not only).

References

1. Barry, P. (1999) – *Speed on skates*, Human Kinetics, U.S.A.
2. Bompa, T. (2002) – *Teoria și metodologia antrenamentului*, Edit. Ex Ponto, București.
3. Gemser H., J. de Koning, G. Jan van Ingen Schenau et al, (1999) - *Handbook of competitive speed skating* – Internatioal Skating Union, Lausanne, Switzerland
4. Hahn, E. (1996) - *Antrenamentul sportiv la copii*, SCJ, 104-105 (3-4), CCPS București.
5. Holum, D. (1984) – *The complete handbook of speed skating*, Enslow Publishers, Inc, Hillside, U.S.A.
6. Madella A. (2000) în *Talentul Sportiv* - C.C.P.S., S.C.J. Nr. 120-121 București.
7. Manno, R. (1996) – *Bazele teoretice ale antrenamentului sportiv*, C.C.P.S., București.
8. *Patinaj* (1991) - Federația Română de Patinaj (1991), U.I.P. Nr. 29, București.
9. www.isu.org/
10. https://en.wikipedia.org/wiki/List_of_world_records_in_speed_skating
11. <https://live.isuresults.eu/events>