

STUDY REGARDING THE EVOLUTION OF THE RESULTS RECORDED BY ESTHERA PETRE IN THE HIGH JUMP EVENT DURING 2002-2011

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Abstract: *This study aimed to emphasize the dynamics of the results recorded in the high jump event, in the children I, juniors III, juniors II, juniors I, and Youth categories, by one of the best Romanian female high jumper.*

In order to emphasize the evolution of the results in the high jump event, we conducted a longitudinal study, and we used as research methods: the study of the specialized literature, the observation, the recording of the results, the statistical-mathematical method and the chart method. The information regarding the results was gathered from the official documents of the Romanian Track & Field Federation, and of the National Sports Agency. The verified hypotheses proved that the results recorded throughout 2002-2011, were increasing, and the progress was different from one year to another.

The results, *recorded and analyzed, emphasize the dynamics of the evolution on competition years and age categories. They prove a progressive and predictable evolution. The conclusions emphasized the fact that authentic talent can progress in time, which confirms our hypothesis, but also that top performance has ups and downs.*

Keywords: *high jump, progress, championships, results, evolution.*

1. Introduction

The Romanian team, participating at the European Athletics U23 Championships, conducted in the Czech Republic, at Ostrava, between 14-17 of July, 2011,

brought in 3 gold medals, one silver medal, and one bronze medal. One of the conquered medals belonged to female high jumper Esthera Petre, from the Olimpia Sports Club Bucharest (Coach Kemal Guner).

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On the Romanian Track & Field Federation website, we can find written, regarding the exceptional performance obtained in the high jump event: "the third gold medal for the Romanian team at the Ostrava European Athletics U23 Championships was conquered by the female high jumper Esthera Petre, who commanded attention with the best result of her career, 1.98 m. Next ranked were Oksana Okuneva (Ukraine) - 1.94 m, and Burcu Ayhan (Turkey) - 1.94 m, new records for their countries, awarded with silver, and respectively bronze." The exceptional result of the 21 year-old young woman, of 1.98 m constitutes a "new record of the championships, equal to the performance form 12 years ago of Russian Svetlana Lapina. Having performances of constant value in this season, Esthera Petre (who has only 2 years left to compete in the category "under 23") showed real athletic qualities, achieving the best performance at her third attempt, right at the peak of her career so far, at these European championships. She had a wonderful performance, remaining the only one at 1.96 m, with 3 daring, hopeful attempts at 2 m" <http://us.mg1.mail.yahoo.com/dc/launch?.gx=1&.rand=87plh0mgfb09>. Thus, on July the 16th, 2011, the high jump tradition signaled a new star deserving to be alongside Iolanda Balaş Söter, Galina Astafei, Oana Pantelimon and Monica Iagăr.

Between 2002 and 2011, Esthera Petre, a young woman with a strong personality, dedicated to professional sports, transformed from a feeble young lady to a hard fighter who knows how to rise her thought and body towards the blue sky, winning the admiration of the people who know what the "sports king - the track" really means, and of the ones who shake in emotion in front of their TVs, or on a

stadium, savoring a new success of a world that integrates athletics, competition, honesty, courage, perseverance, loyalty, and toughness.

But who is really Esthera Petre? She is a beautiful, kind, talented, honest, and fighting young woman. She is a young woman who, for 10 years, left every day to the stadium to practice for jumping over a bar that can get higher than her own size. Her hard work carried on for years brought happiness and fulfillment in the heart of this young lady, it brought to the Romanians the joy of success, it brought to the coaches the certitude of the correctness of their programmed activities, it brought pride to her friends and family. In order to give a more realistic answer, we think it would be more interesting to make an analytical presentation of the results collected over the 10 years of jumping on the Romanian tracks; jumps that emphasize the enormous work began at the age of 13, and continued with passion, dedication, and hope for eight years. The female high jumper Esthera Petre was born in 1990, in Bucharest, and was trained by Liliana Bără.

We think it is necessary for an analysis of the evolution of one of our most valuable athletes, both for emphasizing the results, and for praising a special talent, and a road to be followed.

2. Hypothesis

In order to emphasize the progress ratio recorded by Esthera Petre, we conducted a longitudinal study envisaging the period between 2002 and 2011.

This study started from the hypothesis stating that the results recorded over a period of 10 years by a talented female athlete, have a continuous and balanced progression.

3. Material and method

The research was conducted on one subject, represented by the female high jumper, who managed to become a celebrity in the world of track & field, and fierce competitor in high stakes competitions. The female athlete has been around for 10 years, and she has much experience in the international and national competitions. The study needed for us to gather the results found in the Romanian Track & Field Federation, recorded over the course of 10 years of participation in official competitions. Because throughout the 10 years, our athlete passed from one athletic category to another, the results were recorded per year, and they will be analyzed both on specific age categories, and on each year. As research methods we used: the bibliographical study, the observation, the statistical-mathematical method, and the chart method.

4. Results and discussions

The data recorded during competitions was organized in tables and represented in charts. The interpretation was based on the analysis of the results recorded from one competition to another, from one season to another, from one year to another, for all of the competition period between 2002 and 2011.

4.1. Presentation, analysis, interpretation, and graphical representation of the high jump results in the children I age category

Children I are between 12 and 13 years old, and Esthera Petre was in this category in 2002 and 2003 (results from the RTFF archive, <http://www.fra.ro/>). As we can see in Table 1 and Chart 1, Esthera Petre started to participate in athletic competitions in December 2002, with a result of 1.35 m. The 2003 results are not spectacular, are in a low number (3), and the 5 cm progress cannot be considered very special.

Table 1

Esthera Petre's results in the "Children I" category

Year	Date	Result (m)	Chart 1. The results for the 4 competitions that took place between 2002-2003
2002	8.12	1.35	
2003	31.01	1.30	
	7.03	1.40	
	17.05	1.40	
Progress	0.05		

Presentation, analysis, interpretation, and graphical representation of the high jump results in the Juniors III age category

- Juniors III are between 14 and 15 years old, and Esthera Petre was in this category in 2004 and 2005 (results from the RTFF archive, <http://www.fra.ro/>)

Table 2

Esthera Petre's results in the "Juniors III" category

Year	Date	Result (m)	Chart 2. The results for the 10 competitions that took place between 2004-2005
2004	3.07	1.55	
2005	19.02	1.50	
	12.03	1.55	
	21.05	1.62	
	9.07	1.65	
Progress	0.25		

As it can be seen in Table 2 and Chart 2, Esthera Petre has participated in five official competitions. The 25 cm progress is very good, it reflects her hard work, and the possibilities for evolution recorded throughout two years of training. What is surprising is the fact that in 2004, she participated in only one competition, where she has an athletic performance of 1.55 m, a performance that represents a personal record improved with 15 cm, while in 2005 she participates in four competitions in which she records better and better results, of 1.50 m, 1.55 m, 1.60 m, and 1.65 m. In this year we also observed a relatively high progress of 10 cm.

4.2. Presentation, analysis, interpretation, and graphical representation of the high jump results in the Juniors II age category

Juniors II are between 16 and 17 years old, and Esthera Petre was in this category in 2006 and 2007 (results from the RTFF archive, <http://www.fra.ro/>).

The results recorded by Esthera Petre in the juniors II category show a visible progress of 15 cm. The progress proved to be higher in the first year of being a junior II, of 9 cm, and smaller in the second year, of 6 cm. In 2006, the athlete participated in seven competitions, and her best results

were in the third and the fourth contest. In her second year as a junior II, in 2007, she participated in 13 competitions, obtaining her best results in contests four and nine, which took place in February and June. Even if the athlete participated in a high number of competitions, in 2007 we did not observe any qualitative jump that would upstage the one recorded for the previous age category. (Table 3)

4.3. Presentation, analysis, interpretation, and graphical representation of the high jump results in the Juniors I age category

Juniors I are between 18 and 19 years old, and Esthera Petre was in this category in 2008 and 2009 (results from the RTFF archive, <http://www.fra.ro/>). As we can see in Table 4 and Chart 4, the results recorded by Esthera Petre as a junior I, show a progress of 6 cm. In this period, the improvement was only of 4 cm in her first year as a junior I, and only of 2 cm in her second year. Both in 2008 and 2009, the female jumper participated in seven competitions. In the 7 competitions for 2008, she had one result of 1.70 m, four results of 1.75 m, one result of 1.80 m, and one result of 1.84 cm, while in 2009 she records four results of 1.80 m, two results of 1.84 m, and one result of 1.86 m. (Table 4).

Table 3 Esthera Petre's results in the "Juniors II" category

Year	Date	Result (m)	Year	Date	Result (m)
2006	27.01	1.70	2007	13.01	1.75
	4.02	1.72		3.02	1.78
	11.03	1.74		9.02	1.75
	3.06	1.74		9.02	1.80
	17.06	1.73		24.02	1.79
	2.07	1.73		3.03	1.78
	15.07	1.69		26.05	1.79
Progress =9 cm				2.06	1.78
				16.06	1.80
				30.06	1.77
				27.07	1.75
				11.08	1.70
				18.08	
Progress =15 cm					

Chart 3. The results for the 20 competitions that took place between 2006-2007

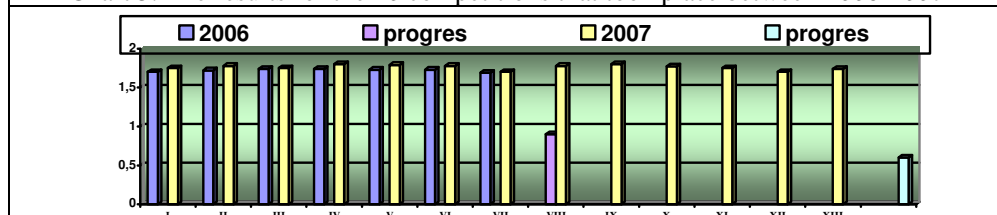
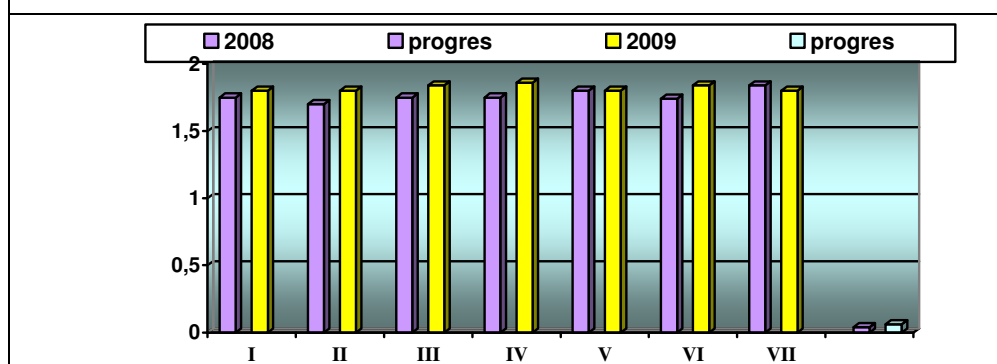


Table 4 Esthera Petre's results in the "Juniors I" category

Year	Date	Result (m)	Year	Date	Result (m)	
2008	15.02	1.75	2009	30.01	1.75	
	9.03	1.70		7.02	1.78	
	25.05	1.75		14.02	1.75	
	1.06	1.75		20.02	1.80	
	6.06	1.80		5.06	1.79	
	27.06	1.75		9.08	1.78	
	29.07	1.84		14.08	1.79	
Progress =4 cm				Progress =2 cm		
Progress =6 cm						

Chart 4. The results for the 14 competitions that took place between 2008-2009



4.4. Presentation, analysis, interpretation, and graphical representation of the high jump results in the youth age category

Youths are between 20 and 23 years old, and Esthera Petre was in this category in 2010 and 2011 (results from the RTFF archive, <http://www.fra.ro/>, but also from the *The rulebook for the track & field activity organization in Romania*).

As we can see in Table 5 and Chart 5, the results recorded by Esthera Petre as a youth, show a progress of 12 cm. In this

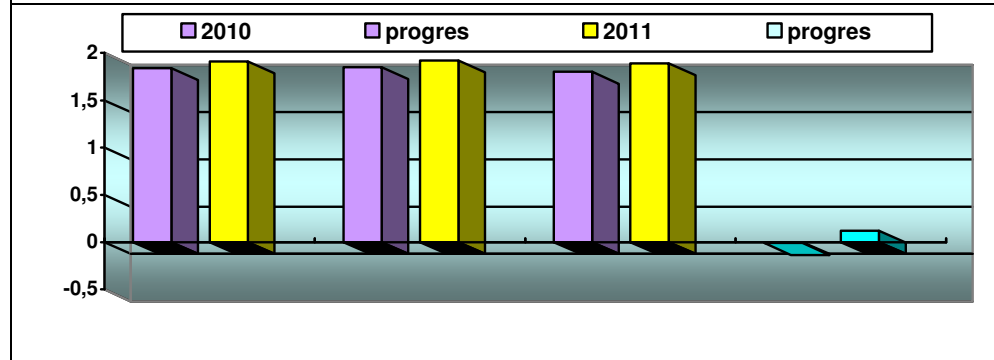
period, meaning throughout 2010, there was a small regress of 1 cm, and in 2011, a large progress of 12 cm. We must also emphasize the small number of competitions, only 3 in 2010, and also in 2011, only three, until July 20th. The big qualitative leap of 12 cm made in 2011 we consider it to be special and we think is due to the athlete's maturity, the changing of the coach, but also to the latter knowing, foreseeing, and trusting the athlete's possibilities and talent.

Table 5

Esthera Petre's results in the "Youth" category

Year	Date	Result (m)	Year	Date	Result (m)
2010	27.02	1.84	2011	15.01	1.91
	30.06	1.85		3.06	1.92
	16.07	1.80		16.07	1.98
Progress =-1 cm			Progress =12 cm		
Progress =12 cm					

Chart 5. The results for the 6 competitions that took place between 2010-2011



4.5. The dynamics of the best results recorded between 2002-2011

The evolution of the results recorded by Esthera Petre throughout the 10 years of training and competition is presented in Table 6 and Chart 6. In order to emphasize the progress and to explain certain aspects, we chose to analyze the best recorded performance for each competition year.

The progress made by the female athlete Esthera Petre during the 10 years of athletic activity, is different from one year to another, and has oscillating values. As we can see in Table 6 and Chart 6, large progress was recorded in 2004 (10 cm), 2005 (10 cm), 2006 (9 cm) and 2011 (13 cm), but also a small regress in 2010 (1 cm).

The regress recorded in 2010, even as small as it may be, can be explained by a

rough passing from one age category to another (juniors to youth), but also by a small injury.

The great progress recorded in 2011 can be explained as the result of accumulation

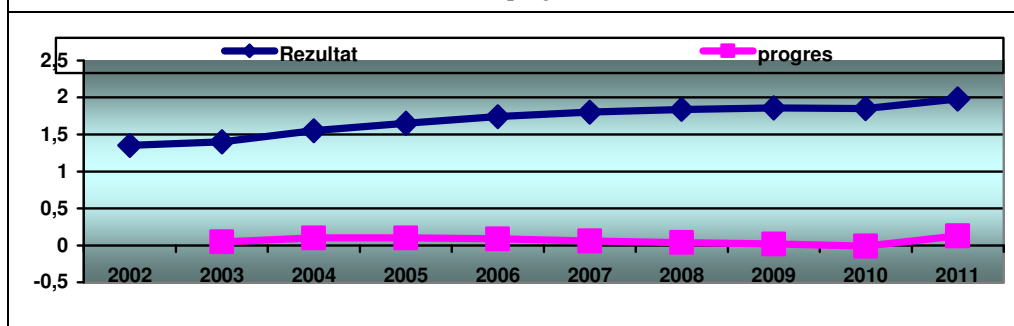
in time of specific effort adaptations, maturity as of perceiving the athletic training, changing places, the environment, and training conception, but also the changing of the coach.

Table 6

E.P's results from children I to youth (2002-2011)

Year	Children I		Junior III		Junior II		Junior I		Youth	
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Res. (cm)	1.35	1.40	1.55	1.65	1.74	1.80	1.84	1.86	1.85	1.98
Annual progress (cm)		5	10	10	9	6	4	2	-1	13
Progress on age category	5 cm		25 cm		15 cm		6 cm		12 cm	

Chart 6. The best results and the progress made between 2002-2011



5. Conclusions

The development of this study allowed the following conclusions:

- the hypothesis stating that "the results recorded over a period of 10 years by a talented female athlete, have a continuous and balanced progression", was only partially confirmed;
- each age category was marked by an obvious increase in the athletic performances;
- the recorded performance was better every competition year, starting with 2002 and finishing with 2011, with an exception for 2010, when the best performance was 1 cm poorer than in 2009;
- the highest progress values were recorded in 2004 (10 cm), 2005 (10 cm), 2006 (9 cm), and 2011 (13 cm), but there was also a small regress in 2010 (10 cm);
- in 2010 there was a drop in the athletic performance, in comparison with the previous year;
- the recorded progress was of 5 cm in the children category, of 25 cm in the Juniors III category, of 15 cm in the Juniors II category, of 6 cm for the female Juniors I category, and of 12 cm in the youths category;
- the results recorded at the European Athletics U23 Championships certify the talent and good training;

- h. there is the possibility to capitalize the talents in Romania when solutions regarding the training methods and financial solution will be found.

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