

Essay of the setting up of a selection scale for the recruitment of young talents in sport

وضع مقياس انتقاء لتوظيف المواهب الرياضية الشابة

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Abstract:

The purpose of this study is to establish minimum standards below which physical merit becomes a limiting factor in performance; and to assist in the selection of high-potential individuals, those who will be most likely to excel relatively quickly in a given discipline. Sixty nine (69) participated in this study. Our study community is composed of adolescents of the sports high school of Draria. These subjects underwent anthropometric measurements. This selection was based on 7 selection criteria resulting from the principal components analysis and which seems to us to be the most relevant: quintuple jump, 40m run, vertical jump, 5x18m shuttle run test, throw and Cooper test. The selection was made by successive sorting, according to this hierarchy of the manifestation of the physical qualities that we highlighted by the factorial analysis and allowing us to identify the subjects making the synthesis of the general qualities required for a competitive practice. All statistical analyses were performed using excel for windows. Descriptive statistics (mean and standard deviation (SD)) were generated for all variables. A correlation study was done using the Pearson test. Principal component analysis was also introduced to identify the variables most representative of the physical value. 14 subjects out of a population of 69, seem to appear as potential talents and have been selected for specialization and competition.

Keywords: Evaluation; aptitudes physiques; barème de sélection jeunes talents sportifs

ملخص:

تهدف هذه الدراسة إلى وضع المعايير الدنيا التي يصبح الاستحقاق البدني دونها عاملاً مقيداً في الأداء؛ وهي المعايير التي تساهم في انتقاء أشخاص ذوي إمكانيات عالية، وهم الأشخاص المرشحين للتفوق بسرعة نسبية في تخصص معين. شارك في هذه الدراسة تسعة وستون (69) شخصاً. يتكون مجتمع دراستنا من مراهقين في المدرسة الثانوية الرياضية بداريا. حيث خضع هؤلاء الأشخاص للقياسات الأنثروبومترية. واستند هذا الانتقاء إلى 7 معايير انتقاء ناتجة عن تحليل المكونات الرئيسية والتي تبوّلنا الأكثر صلة: القفزة الخماسية، سباق 40 متراً، القفزة العمودية، اختبار الجري المكوكي 5 × 18 متراً، اختبار الرمي واختبار كوبر. تم الانتقاء عن طريق الفرز التتابعي، وفقاً لهذا التسلسل الهرمي لإظهار المؤهلات البدنية التي أبرزناها من خلال تحليل العوامل التي سمحت لنا بتحديد الأشخاص الذين تجتمع فيهم الصفات العامة المطلوبة لممارسة تنافسية. وتم إجراء جميع التحليلات الإحصائية باستخدام برنامج نوافذ إكسل. تم إعداد الإحصاء الوصفي (المتوسط والانحراف المعياري) لجميع المتغيرات. وأجريت دراسة الارتباط باستخدام اختبار بيرسون. كما تم تقديم تحليل المكون الرئيسي لتحديد المتغيرات الأكثر تمثيلاً للقيمة البدنية. حيث برز 14 شخصاً من أصل 69 شخصاً كمواهب محتملة وتم انتقاؤهم للتخصص والمنافسة

الكلمات الدالة: التقويم؛ القدرات البدنية؛ مقياس انتقاء المواهب الرياضية الشابة

Essay of the setting up of a selection scale for the recruitment of young talents in sport

Introduction:

The Making of a Champion is a multi-stage process of a very specific order and the performance achieved by high-level athletes is the fruit of constant work and well-organized and studied follow-up.

The early detection of talent that requires an assessment program is a major concern in all sports (Zemouli and al., 2020). Although it is practically absent in our country, it is deemed as one of the guarantees of subsequent high-level achievement. High performance is variable due to the lack of finding out talented athletes and based on setting up an integrated program to promote athlete development (Mahdad Azzouz, 2011). Consequently, athletes do reach neither their full potential nor their optimal performance level.

The current system of developing young athletes focuses on winning competition. Since the best performance achieved during the season most often represents the only possible assessment for our young athletes. The prediction of young talent is mainly intuitively relied on the performance of young people. The disadvantage is that the said prediction is based on the experience of the coaches that is therefore difficult to be transmitted and to be objective and does not meet scientific or methodological requirements. Such methods can lead to unilateral preparation, early depletion of the athlete's potential or overtraining.

However, the best understanding of motor development and physical merits development shall be resulted from many observations (tests) or punctual and regular assessments (Boukechiche et al., 2020). Further methods, beyond simple performance in competitions, are required.

The purposes of our study are : To establish minimum standards below which physical merit should become a limiting factor in performance; and to help selecting high-potential individuals, those who will be most likely to excel relatively quickly in a certain discipline.

While the assessment of physical merits does not raise any significant problem, the question shall be raised is how and in which way can the results obtained during the tests be used to carry out a process of selecting and guiding young athletes with likely high practical competitive potential? The matter regards therefore how to carry out an assessing program of the physical merits level of our young athletes and integrating the said program within a long-term athlete development sample?

The assessment of physical merit through field tests is nowadays conventional (Koutchouk, 2011; Mokkedes, 2013). In many sports disciplines, the relationship between performance and tests measuring the efficiency of athletes concerning factors such as speed, explosive strength, endurance, etc. is a well-established fact.

The programming of a good quality-training program suggests acquiring information on the level of this quality. The assessment of physical qualities aims at diagnosing the strong and weak points of the individual, in order to better manage the training.

We believe that an assessment process may be based on general tests that will make it possible to distinguish young practitioners following their general physical merit.

1. Method and Materials

We have chosen the descriptive method, which is adapted to the character of the problem and the variables of our study, in order to obtain the findings in the light of the available data.

1.1. Participants

Sixty-nine (69) boys participated in the study. Our study community is composed of teenagers and all measurements and assessments were conducted. The characteristics of the participants are given in Schedule 1.

Schedule No. 1 : Characteristics of the participants (mean $\pm$ standard deviation)

Number of participants (No.)	Age (years)	weight (kg)	Hight (cm)
69	13,46 $\pm$ 1,05	47,29 $\pm$ 8,88	155,77 $\pm$ 8,16

2.2. Materials

In our study, participants were measured using an anthropometric suitcase and a scale. As well as the quintuple jump, the 40m run, the vertical jump, the 5x18m shuttle run, the 500g ballast throw and the Cooper test.

2.3. Design and Procedure

The physical tests and biometric measurements were conducted within two days, the first day was reserved for anthropometric measurements and the second one for physical tests. The selected tests allowed, with the use of the simplest equipment, to assess the subject's physical aptitude and included 7 tests:

2.3.1. Anthropometry

The anthropometric measurements included: height (a MARTIN anthropometer) and weight (a medical scale (SECA) with an accuracy of $\pm$ 50 grams).

2.3.2. Tests of general physical fitness

The selected tests allow, with the simplest equipment, to assess the physical fitness of the subject and include 7 tests:

- 40m run**, to assess the Displacement Speed or Cyclic Speed. The extension
- Shuttle run of 5 x 18 metres**, speed-coordination and endurance. The abduction
- Vertical relaxation**, Explosive leg strength, "anaerobic alactic power". The adduction
- Quintuple long jump**, Explosive force (power) and coordination. The rotation
- Throw ballast 500g**, explosive force of the arm. The pronation
- 12-minute cooper test**, to assess cardio respiratory endurance (aerobic capacity)

2.3.2. Method for drawing up standard score tables

Essay of the setting up of a selection scale for the recruitment of young talents in sport

In order to accurately assess the value of the performances achieved by the boys aged from 14 to 15, we have drawn up a t-scoring scale standardised for this age group for the 7 physical tests.

The scores interval from 20 to 80 scores. These scales have a distribution in the interval [*Mean - 3 standard deviations, Mean + 3 standard deviations*].

2.4. Statistical Analysis

All statistical analyses are performed using Excel. Descriptive statistics (mean and standard deviation (SD)) were established for all variables.

We have introduced Principal Component Analysis (PCA) for the identification of the most representative physical merit variables.

3. Results

Height and weight play a significant role in successful sport, especially for young growing athletes. Thus, the height CV is 5.24%, the weight CV is 18.78% (Schedule No.02), which indicates a greater variability of weight in relation to height. In other words, the group is more homogeneous regarding height regarding weight. !!!!!!!

The values of the variation coefficients show the greatest dispersion in the throwing test (CV= 24.82%) and to a lesser extent in the vertical jump test (CV= 21.10%), which indicates that children between 12 and 15 years of age form a very heterogeneous group for these 2 tests and show significant differences between them in the explosive strength of the upper and lower limbs. On the other hand, analysis of the variation coefficients for the 5 x18m shuttle run (CV= 6.29%) and the 40m speed run (CV= 9.17%) show us greater homogeneity in terms of performance in the speed tests compared to the strength tests.

Schedule No. 02: Test results expressed as mean $\pm$ standard deviation

Variables	Hight (cm)	Weight (kg)	VJ m)	40m (s)	Shuttle race 5×18 m),(s)	5 jumps (m)	Launch (m)	Cooper (m)
Mean	155,77	47,29	36,51	6,52	21,66	9,49	21,83	2459
$\pm$ standard deviation	$\pm$ 8,16	$\pm$ 8,88	$\pm$ 7,70	$\pm$ 0,60	$\pm$ 1,36	$\pm$ 1,18	$\pm$ 5,42	$\pm$ 332
Coefficient of variation (%)	5,24	18,78	21,10	9,17	6,29	12,38	24,82	14

VJ : The Vertical Jump

3.1. Analysis

3.1.1. Main Component Analysis

The correlations between the variables, the variables and the axes are represented by means of the correlation circle P1-2. The variables that determine the first 2 main components are represented for the axes (1,2) in the following circle of correlations (Figure No. 01):

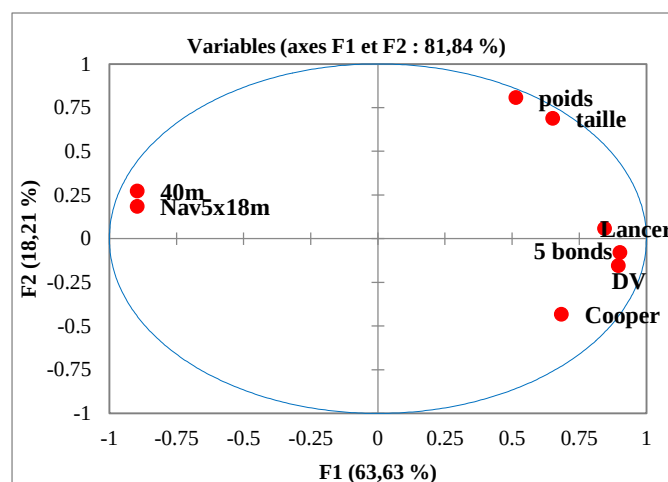


Figure No. 01 : correlation circle

Nav=shuttle /Vairables (axes F1 and F2 : 81.84%)

Poids= weight/ taille= high/Lancer= lunch/ bonds= jumps/ DV=VJ/ Cooper= cooper

Axis No. 01 may be explained by the projection of the variables characterized by the strength of coordination and speed (5 Jumps, 40m, the vertical jump, the 5x18m shuttle run,) and to a lesser extent the strength of the upper limbs (throwing). Therefore, the endurance has a small contribution to the first axis.

Axis No. 02 is explained by the projection of the variables, body weight and height.

3.2 Drawing up standardized score tables

From such results, we can now draw up our scoring tables for each test. Remember that the principle of a scoring table is to give marks to a performance according to a scale of scores. The scoring table also allow assessing the "general athletic merit" by calculating the average of all the scores in each test (see schedules in the appendix).

These scales have a distribution in the interval [*Mean - 3 standard deviations*, *Mean + 3 standard deviations*], Schedule No. 04.

Schedule No. 04 : percentage of observations per inteerval

Levels	Ratings (marks)	Intervals	Number of observations (%)
Very Weak	30 to 20	[-2 standard deviations and -3 standard deviations]	2,15
Weak	40 to 29	[- 1 standard deviations and -2 standard deviations]	13,59
Mean	41 to 59	[-1 to + 1 standard deviation].	68,26
Good	60 to 69	[+ 1 standard deviation and + 2 standard deviations].	13,59
Very good	70 to 80	[+ 2 standard deviations and + 3 standard deviations]	2,15

Essay of the setting up of a selection scale for the recruitment of young talents in sport

3.3 Individual ranking of general physical merit level

In order to appreciate even more accurately the individual merit of the performances achieved by the young athletes in the competition, we have established a general ranking based on the scores in the scales. For this purpose, each performance is normalized by applying one of the following formulas:

(1) *Direct normalized score* = $50 + 10 (\text{performance} - \text{mean}) / \text{standard deviation}$

(2) *Direct normalized score* = $50 + 10 (\text{performance} - \text{mean}) / \text{standard deviation}$

Formula (2) is used when the best performance is represented by a lower than average value (time of a speed test).

Schedule No. 06: transformation of performance into standard score points for boys aged 14-15 years old

No.	Age	40m	Shuttle5x18 (m)	DV	5jump (s)	Launch	Soup	Cooper	Athletic value
35	14	63,21	63,83	55,47	66,44	61,98	45,54	54,77	58,75
36	14	59,20	49,44	51,54	57,34	41,05	50,89	47,14	50,94
37	14	60,74	54,59	48,92	55,27	52,03	69,61	54,77	56,56
38	14	55,04	51,67	51,54	65,20	45,61	53,57	55,15	53,97
39	14	41,47	50,28	46,30	43,68	70,06	58,92	50,19	51,56
40	14	63,98	64,14	69,87	60,48	42,92	48,22	49,05	56,95
41	14	61,98	45,05	62,02	55,27	60,74	61,59	61,63	58,32
42	14	44,25	43,89	42,38	39,54	53,07	48,22	56,68	46,86
43	14	38,24	42,51	37,14	26,29	41,57	42,87	47,14	39,39
44	14	44,25	48,67	46,30	32,92	47,89	56,24	57,44	47,67
45	14	45,63	45,05	43,68	44,09	48,72	64,26	42,95	47,77
46	14	35,61	32,50	31,90	39,54	47,68	37,52	36,85	37,37
47	14	46,25	47,13	47,61	46,33	43,54	64,26	50,96	49,44
48	14	56,27	60,22	52,85	53,61	67,78	77,64	58,58	60,99
49	14	37,31	38,43	44,99	38,88	45,30	26,82	46,00	39,68
50	14	50,41	37,04	58,09	47,82	44,99	42,87	18,55	42,82
51	14	36,54	31,34	33,21	36,23	39,81	37,52	33,04	35,38
52	14	50,57	48,74	47,61	50,80	38,46	40,19	41,81	45,45
53	14	42,40	43,58	41,07	46,16	46,23	37,52	44,48	43,06
54	14	47,33	53,36	39,76	43,68	36,28	40,19	47,72	44,05
55	14	39,62	43,82	43,68	37,47	37,42	53,57	39,52	42,16
56	14	41,16	42,74	41,07	41,86	37,74	66,94	33,80	43,61
57	15	53,50	45,97	44,99	42,02	55,35	53,57	56,68	50,30
58	15	51,96	55,98	54,16	54,03	54,52	66,94	66,40	57,71
59	15	38,39	48,74	41,07	44,09	56,08	32,17	52,86	44,77
60	15	43,63	49,21	50,23	45,75	40,43	48,22	31,89	44,19
61	15	30,68	34,73	41,07	37,06	38,15	42,87	19,31	34,84
62	15	62,75	67,92	68,56	63,55	64,26	53,57	60,49	63,01
63	15	60,43	64,91	65,94	61,06	68,20	45,54	57,06	60,45
64	15	55,04	57,91	59,40	55,27	58,87	56,24	47,53	55,75

65	15	58,89	62,91	63,32	59,41	62,91	40,19	54,39	57,43
66	15	65,06	70,92	67,25	66,03	76,38	50,89	65,06	65,94
67	15	68,14	74,92	75,11	69,34	81,25	56,24	70,78	70,83
68	15	52,73	54,90	56,78	52,79	54,73	45,54	43,41	51,55
69	15	47,33	47,90	50,23	46,99	45,61	37,52	33,80	44,20

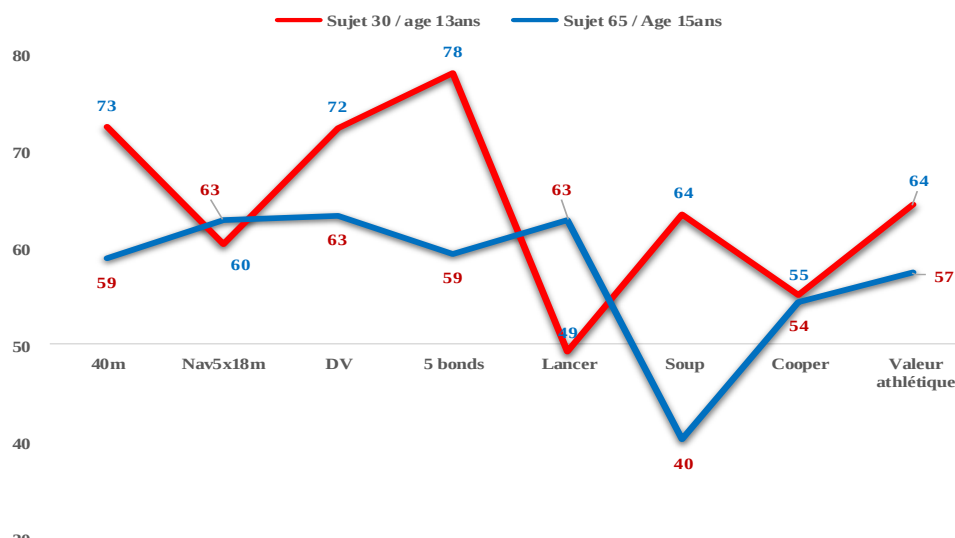


Figure No. 01 : Individual profile

Sujet: subject 30/ age 13 years/

Nav= shuttle/ DV=VJ/bonds= jumps/ lancer= launch/ cooper= cooper/ valeur athlétique= athletic merit/soup= soup

3.4. Drafting Profiles

Thanks to the scales, presented in the form of a scoring table, enabling an immediate score to be obtained, corresponding to the score achieved, it becomes possible to quickly visualise one or a group of athletes and to situate each of them according to an identical scale on a summary profile (figure No.1).

Examination of the profile allows significant conclusions to be drawn about the qualifications of the subject and has the particular advantage of indicating to the coach the possible training guidelines, namely either speed work, relaxation work, muscle strengthening work or endurance work in order to provide the athlete with the most complete and balanced potential. As for the specific profiles by specialty regarding high level athletes, they may constitute a reference figure within the framework of sports detection.

3.5. Setting up the best subjects selection

This selection would be made by successive sorting, allowing the subjects to be identified by summarizing the general abilities required for competitive practice and, particularly, the development of more specific abilities according to the chosen discipline.

Essay of the setting up of a selection scale for the recruitment of young talents in sport

We will choose to make up our group of 7 selection criteria from our principal component analysis which seem to be the most relevant: quintuple jump, 40m run, vertical jump, 5x18m shuttle run, throw and Cooper test. Our successive sorting of the variables to be selected will therefore be done according to this ranking of demonstrating the physical abilities that we have emphasized by the factorial analysis. The first selection criterion is the quintuple jump. Subjects with less than 50 scores are excluded. We thus obtain the following schedule (Schedule No.07). We will then proceed in the same way for the following selected tests.

Schedule No. 07 : 16 subjects out of 35 selected on the 1st criterion quintuple jump.

No.	Age	40m	Shuttle 5x18m	VJ	5 jumps	Launch	Cooper	VPG
67	15	68,14	74,92	75,11	69,34	81,25	70,78	70,83
66	15	65,06	70,92	67,25	66,03	76,38	65,06	65,94
40	14	63,98	64,14	69,87	60,48	42,92	49,05	56,95
35	14	63,21	63,83	55,47	66,44	61,98	54,77	58,75
62	15	62,75	67,92	68,56	63,55	64,26	60,49	63,01
41	14	61,98	45,05	62,02	55,27	60,74	61,63	58,32
37	14	60,74	54,59	48,92	55,27	52,03	54,77	56,56
63	15	60,43	64,91	65,94	61,06	68,20	57,06	60,45
36	14	59,20	49,44	51,54	57,34	41,05	47,14	50,94
65	15	58,89	62,91	63,32	59,41	62,91	54,39	57,43
48	14	56,27	60,22	52,85	53,61	67,78	58,58	60,99
38	14	55,04	51,67	51,54	65,20	45,61	55,15	53,97
64	15	55,04	57,91	59,40	55,27	58,87	47,53	55,75
68	15	52,73	54,90	56,78	52,79	54,73	43,41	51,55
58	15	51,96	55,98	54,16	54,03	54,52	66,40	57,71
52	14	50,57	48,74	47,61	50,80	38,46	41,81	45,45

We obtain the following selection according to the successive sorting:

- 28 subjects selected on the 2nd criterion Speed 40m (knowing the 1st criterion) ;
- 23 subjects selected on the 3rd criterion, vertical relaxation (knowing the 1st and 2nd criteria);
- 21 subjects selected on the 4th criterion, Shuttle 5x18m (knowing the 3 previous criteria);
- 17 subjects selected on the 5th criterion (knowing the 4 previous criteria);
- 14 subjects selected (Schedule No. 08; figure No. 02) on the 6 th criterion, Cooper's test (knowing the 5 previous criteria).

Schedule No. 08 : final selection of the 8 subjects Ranked according to general physical value

Subject No.	Age	40m	Shuttle5x18m	VJ	5 jumps	Launch	Cooper	VPG
67	15	68,14	74,92	75,11	69,34	81,25	70,78	70,83
66	15	65,06	70,92	67,25	66,03	76,38	65,06	65,94
62	15	62,75	67,92	68,56	63,55	64,26	60,49	63,01
48	14	56,27	60,22	52,85	53,61	67,78	58,58	60,99
63	15	60,43	64,91	65,94	61,06	68,20	57,06	60,45
35	14	63,21	63,83	55,47	66,44	61,98	54,77	58,75
58	15	51,96	55,98	54,16	54,03	54,52	66,40	57,71
65	15	58,89	62,91	63,32	59,41	62,91	54,39	57,43

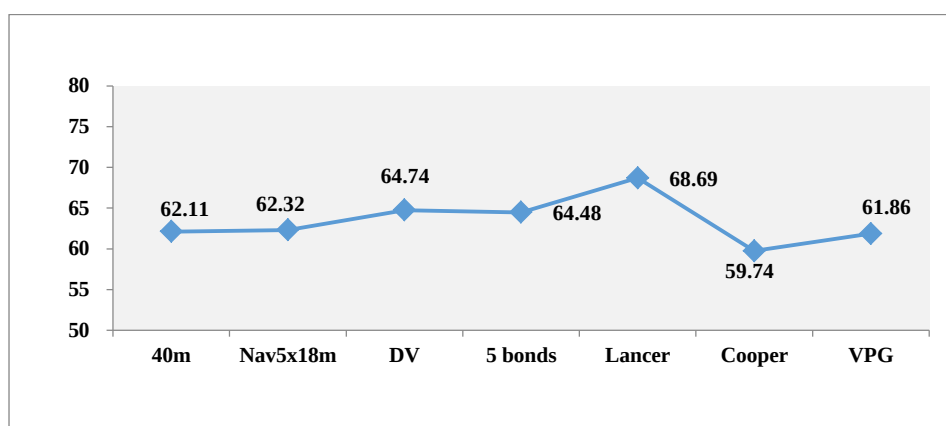


Figure No. 02 : profile of the 8 selected subjects

Nav= Shuttle/ DV=VJ/ bonds =jumps/ Lancer= Launch/ Cooper= cooper /VPG= VPG

4. Debate

Analysis of the correlations between performances in physical tests demonstrates that tests that express a common ability, explosive force, are significantly correlated with each other. However, tests involving explosive force, speed and power are not separated from endurance, which means that the abilities are expressed in a global way.

Tests involving explosive strength, speed and power are thus not separated from endurance, which means that physical abilities are still undifferentiated at this age (14-15 years). It is worth noting that this age group corresponds to the puberty phase which is characterized by the morphological acceleration of the organism as well as by the acceleration of the various biological systems. (Sadouki, 2020).

However, it would be worth recalling that to study the correlation between two or more variables (Seyah et al., 2020) means to study the intensity of the link that may exist between these variables and that the use of the correlation coefficient has given rise to strong controversy given the difficulties in interpreting this parameter.

These 8 subjects (out of 35) seem to be potential talents and will be selected for specialization and competition. It is noteworthy that the subjects with a reduced Z-

Essay of the setting up of a selection scale for the recruitment of young talents in sport

difference, positive, namely above the average in terms of body height and weight, obtain the best scores in the tests, as can be seen in the general physical merit.

It is important to note that our sample of boys is aged between 14 and 15 years and this age range represents the puberty phase which is characterized by a morphological and functional development of the biological systems, resulting in early children being over-represented in the case of athletic selection. (Khiat, 2014).

The influence of growth and maturation on performance is well demonstrated and it has been clearly established that late-developing children are disfavored and early-developing children are favored (Khiat, 2010). Growth and maturation rates differ among children irrespective of chronological age, and children's physical abilities are closely linked to the developmental processes that occur during their growth. These relationships can be demonstrated by observing a similar increase in physical test scores as well as an increase in age and body size.

Cazorla (2014), emphasizes on the need to take into account the large inter-individual varieties linked to age (biological rather than chronological age) and the importance of training prior to the detection period. He explains that good results obtained early can indeed often be the consequence of accelerated maturation and/or intensive training which then offers little room for progress. Similarly, Favre (2016), writes that Professional football club recruiters tend to focus on current ability rather than potential, and therefore tend to select precociousness rather than talent. Furthermore, it is important to know that intensive training in children without assessing their biological age can lead to growth disorders, particularly of the osteo-articular and musculo-tendinous apparatus.

5. Conclusion

The aim of our approach was to develop field tests providing the coach with tools that allow a more objective knowledge of the physical merit of the subjects entrusted to him. This study of the physical merit of young people, the conventional statistical description of the variables per test and per category, the study of the correlations between the different tests and the elaboration of assessment scales, constitute the first essential step in the elaboration of a research program for guidance and detection and for the establishment of a talent selection model. The inter-individual differences according to age enabled us to establish rating tables for the level of performance. The importance of scale is significant and should be one of the main objectives of the control and monitoring of training.

In conclusion, we believe that only the generalization of the use of these batteries of tests in current practice (together with specific tests, as general motor sport tests, can indicate whether an athlete possesses basic skills, but cannot establish whether he can use them in a particular discipline) and, at the same time, the establishment of longitudinal studies will give these tests their true operational character for the coach..

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Essay of the setting up of a selection scale for the recruitment of young talents in sport

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Appendix

Schedule No. 10: Rating table boys aged between 14-15

Marks	40m	Suttle5x18m	VJ	5 jumps	Launch	Cooper
80	4,38	16,86	62	13,69	37,91	3411
79	4,45	17,00	61	13,57	37,427	3385
78	4,51	17,14	60	13,45	36,944	3359
77	4,58	17,28	59	13,33	36,461	3332
76	4,64	17,42	59	13,21	35,978	3306
75	4,71	17,56	58	13,09	35,495	3280
74	4,77	17,69	57	12,96	35,012	3254
73	4,84	17,83	56	12,84	34,529	3228
72	4,90	17,97	56	12,72	34,046	3201
71	4,97	18,11	55	12,60	33,563	3175
70	5,03	18,25	54	12,48	33,08	3149
69	5,10	18,39	53	12,36	32,597	3123
68	5,16	18,53	53	12,24	32,114	3097
67	5,23	18,67	52	12,12	31,631	3070
66	5,29	18,81	51	12,00	31,148	3044
65	5,36	18,95	50	11,88	30,665	3018
64	5,42	19,08	50	11,75	30,182	2992
63	5,49	19,22	49	11,63	29,699	2966
62	5,55	19,36	48	11,51	29,216	2939
61	5,62	19,50	47	11,39	28,733	2913
60	5,68	19,64	46	11,27	28,25	2887
59	5,75	19,78	46	11,15	27,767	2861
58	5,81	19,92	45	11,03	27,284	2835
57	5,88	20,06	44	10,91	26,801	2808
56	5,94	20,20	43	10,79	26,318	2782
55	6,01	20,34	43	10,67	25,835	2756
54	6,07	20,47	42	10,54	25,352	2730
53	6,14	20,61	41	10,42	24,869	2704
52	6,20	20,75	40	10,30	24,386	2677
51	6,27	20,89	40	10,18	23,903	2651
50	6,33	21,03	39	10,06	23,42	2625
49	6,40	21,17	38	9,94	22,937	2599
48	6,46	21,31	37	9,82	22,454	2573
47	6,53	21,45	37	9,70	21,971	2546
46	6,59	21,59	36	9,58	21,488	2520

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45	6,66	21,73	35	9,46	21,005	2494
44	6,72	21,86	34	9,33	20,522	2468
43	6,79	22,00	33	9,21	20,039	2442
42	6,85	22,14	33	9,09	19,556	2415
41	6,92	22,28	32	8,97	19,073	2389
40	6,98	22,42	31	8,85	18,59	2363
39	7,05	22,56	30	8,73	18,107	2337
38	7,11	22,70	30	8,61	17,624	2311
37	7,18	22,84	29	8,49	17,141	2284
36	7,24	22,98	28	8,37	16,658	2258
35	7,31	23,12	27	8,25	16,175	2232
34	7,37	23,25	27	8,12	15,692	2206
33	7,44	23,39	26	8,00	15,209	2180
32	7,50	23,53	25	7,88	14,726	2153
31	7,57	23,67	24	7,76	14,243	2127
30	7,63	23,81	24	7,64	13,76	2101
29	7,70	23,95	23	7,52	13,277	2075
28	7,76	24,09	22	7,40	12,794	2049
27	7,83	24,23	21	7,28	12,311	2022
26	7,89	24,37	20	7,16	11,828	1996
25	7,96	24,51	20	7,04	11,345	1970
24	8,02	24,64	19	6,91	10,862	1944
23	8,09	24,78	18	6,79	10,379	1918
22	8,15	24,92	17	6,67	9,896	1891
21	8,22	25,06	17	6,55	9,413	1865
20	8,28	25,20	16	6,43	8,93	1839