Technical preparation in school skaters from Villa Clara

Abstract

Skating in today's society is one of the favorite sports for children, youth and adults as it seeks healthy fun and physical recreation. Various variables such as strength, speed and power influence their sports results, which are useful only if they are well focused and directed to technical work, hence their importance. The objective of the present investigation was: to characterize the technical preparation in school skaters from Villa Clara. Different methods and techniques were used such as: the synthetic analytic, document analysis, survey, observation, measurements and mathematical statistics that allowed knowing the preparation and technical limitations of the subjects under study. As a result, the diagnosis of the technical mastery of the school skaters of Villa Clara is offered, which guides the coaches of this sport where to direct their attention during the technical preparation and select exercises in correspondence with the fundamental technical errors of their skaters, to thus influencing better sports results.
Keywords: technical preparation, school skaters, coaches, results.

Introduction

The advance operated worldwide by sport is extremely significant, forcing athletes from the early years to begin the practice of physical activities for the acquisition of better physical development and greater sports performance.

Rangel and González (2012) refer that skating is sliding or rolling on a surface. To do this, a posture must be adopted that allows you to move stably while pushing yourself. Skating is considered exceptional because it is a mode of human locomotion that obtains movement through lateral pushes.

When their psychophysical demands or demands are analyzed, González (2011) defines that skating is a sport that requires high physical, technical, tactical and psychological preparation; the energy systems are combined, starting from an aerobic disposition since it requires constant oxygen rhythms, as well as a high anaerobic demand, due to the need to explode at times of competition. In the present investigation, technical preparation is emphasized without neglecting that for it to be effective it is based on the physical and is directly related to the tactical and psychological aspects.

Hext, Heller, Kelley, and Goodwill; Konings and Hettinga; Konings and Hettinga, (as cited in Martynenko and Oreshkina 2020) consider that technical and tactical training is an integral part of the process of training qualified career skaters, and that its mastery directly affects the achievement of high results, so At each stage of sports development, special attention must be paid to the training and development of technical and tactical

actions, since on short track the result of the competition over a certain distance depends to a great extent on these elements, considerations that are shared.

Palao, Manzanares and Ortega, (as cited in Griego, Ojeda and Griego, C.E. 2020) reflect that high-level competition today is increasingly demanding and requires a solid development of technical-tactical skills in players. from its initial training stage. In this sense, it is considered a necessity to begin its preparation from an early age.

Papadopoulou, Giatsis, Billis, Giannakos and Bakirtzoglou (2020) ensure that only effective control of the development of technical-tactical skills of the players from the time they start playing sports, will be able to increase the results during the competition, a reality with which identifies technical work in skating.

Lopez; García de Alcaraz, (as cited in Griego, Ojeda y Griego, C.E. 2020) consider that in this stage of sports initiation the development of technical-tactical skills is essential, it constitutes the fundamental element to organize and direct an adequate training process .

For this reason, Luega (2015) is of the opinion that the general pattern of skating movement is a skill, which, executed in a particular way, forms a technique and this, in turn, can undergo changes according to the physical and coordinative parameters of the skater. which defines an execution style.

Zamora and Olivera (2019) believe that despite the studies carried out to improve the sports preparation process in skating and the efforts of the National Institute of Sports and Recreation (INDER) to achieve a higher quality in the sports performance of skaters , the demands that the current situation poses to those of career skating are not satisfied, in this sense the teaching-learning process of the techniques, constitutes a fundamental aspect for the achievement of relevant sporting results.

The Comprehensive Skating Athlete Preparation Program (PIPD, 2016) guides for the school category in relation to the technical preparation that must be:

• Continue teaching the double push technique in a straight line: internal push phase and recovery; external push and descent phase.

• Systematic exercise of the phases of the technique in curve, inside foot to the curve: (mainly the left) phase of push in, recovery and descent, outside foot to the curve (mainly right) phase of push out, recovery and decline.

• Systematic exercise of the snatch, starting position, starting thrusts, phases of the first steps of acceleration.

• Systematic exercise of the technique of arrival and the technique of change in relays

In these guidelines it is evident that school skaters upon entering the School of School Sports Initiation (EIDE) must master the fundamental elements of this sport in order to meet the requirements of the category and be able to participate in the competitions provided for in the preparation macrocycle.

In the discussion of the Skating Strategy of the province of Villa Clara for the four-year period (2021 - 2024), different aspects that affect the results of this sport in the school category were pointed out as weaknesses, which affected that in the four-year period of 2016 - 2020 the school teams have not obtained medals, among these indicated weaknesses are the following:

• Inadequate technical - methodological and professional level of the coaches at the base level.

• Not using updated teaching methods and training at the grassroots level.

• Deficiencies in the mastery of the technique of school skaters

• Lack of determinant sports equipment in the correct formation of the skater.

• The lack of provincial tournaments in the school and pioneer category.

• Difficulties in the selection and enrollment to the EIDE.

• Lack of coaches in the sports areas of Santa Clara.

• Insufficient trainers in the municipalities.

All these weaknesses influence the deficient results achieved by the school teams of the province in the last four years, the main causes that make skaters to have an inadequate technical level when entering the EIDE, which has a negative impact on the competitive results of the province.

All of the above leads to suggest that the technical mastery of the skaters who enter the EIDE of Villa Clara does not correspond to the requirements of this category, hence the need for its characterization to introduce modifications to the training plan and minimize deficiencies. found techniques.

The present work proposes as objective: to characterize the technical preparation in school skaters of Villa Clara. Especially in their training process, taking into account the need to complement their technical preparation and prepare them for the fundamental skills of this category.

Materials and methods

In the present investigation, the general method of science that is used is the dialectical materialist method, the quantitative and the qualitative were combined, according to the

objective of the investigation and taking into account the dynamics of the object, the subject and the process, as well as the subjective and the objective.

In this sense, the object is technical preparation, the subjects are school skaters from Villa Clara, and the process is sports training with an emphasis on technical direction. The scenario where the EIDE Héctor Ruiz research is carried out in this province. We work with three populations, a first that is made up of the seven school skaters that are studied, a second is made up of the provincial methodologist of this sport and the third population is made up of the two coaches of this category.

Of the seven skaters, four female and three male, all are 13 years old, two belong to the municipality of Camajuaní and the rest to Santa Clara. The provincial methodologist of Skating, Modern Pentathlon and Triathlon has a degree in Physical Culture and a Master's in Sports Training for High Competition, with more than 15 years of experience as a manager of these sports with satisfactory results at the national level.

And the third population is made up of the two Skating coaches of the school category of the EIDE of Villa Clara, both have a high level of knowledge and experience in this sport, as athletes and teachers, with more than 17 years in their professional performance, obtaining results and medals for more than 10 consecutive years. Both are higher level graduates and are passed to opt for the Master category.

Different methods and techniques of scientific research were used in correspondence with the initial stage through which it is transited, which allowed establishing the relationships with the object and subject of the investigation, the contributions of Estévez, Arroyo and González are assumed in this sense (2006) when referring to the specific forms of knowledge of science in this particular case, of Physical Culture.

The aforementioned authors classify the methods according to the level of knowledge that is obtained with their application in theoretical and empirical. Of them are used in the present investigation:

Analytical – synthetic: present in all phases of the investigative process and in the interpretation of the results achieved. It was used to carry out analysis and inferences in relation to the contents of technical preparation in school skaters, as oriented in the PIPD of this sport.

The empirical methods used in the present investigation.

Document analysis: to determine the characteristics of the training structures used in Skating, and to know what is oriented in relation to technical preparation in the initiation

stage. In this sense, the Skating PIPD, the graphic and written plan of school skaters and the planning of training sessions are reviewed.

Observation: structured and participant observation was used to find out the treatment that coaches give to the technical preparation of school skaters, and to verify their evolution in the preparatory competition in relation to technical work.

Survey: to know the treatment that skating coaches give to the technical preparation of school skaters, to know what the managers guide in relation to this preparation, taking into account the particularities of the province and the lack of technical strength.

Measurement: it was used to control the results obtained in the pedagogical test. The measurements were made at the beginning of the sports preparation of the macrocycle under study.

The test that uses a 200-meter race in which the execution technique of the different phases of race skating is evaluated: start, curve race, straight race and arrival at the finish line. Starting position, balance, transitory steps and coordination are observed from the start. From the straight race, the position adopted by the skater, the transfer of the center of gravity, the thrusts, slides and recovery.

From the curved race, the technique of the skater's body position, the thrusts with the right leg and left leg, coordination and crossings are appreciated. From the arrival to the goal, the technique is analyzed in correspondence with the leg they use, as well as the espadrille and balance of the skater.

According to Mantilla (2019) there are four skating techniques that describe and mention the most common errors of each of them, which are taken into account in the present investigation as a starting point to analyze and evaluate the skating technique, are presented next:

1. Straight line technique: The movement that is carried out in the straight line is continuous and repetitive, it is done with both skates applying the greatest possible force to move quickly.

To evaluate the race in a straight line, the maximum score is five points, to be evaluated well the skater must reach the evaluation of 5 to 4 points, to reach this evaluation he cannot make the fundamental errors related to the position of the trunk and the legs. You can make at least two of the other mistakes. For the evaluation of regular, he reaches the score of 3 to 2 points, for which he must have made up to four technical errors and if he makes more than five errors, he obtains the evaluation of bad, being awarded only one point.

2. Technique in curve: here the movement is carried out taking the steps crossing the skate of the outside of the curve on the skate of the interior, the movement will be continuous and repetitive. This movement is popularly called braiding.

In this phase, the fundamental errors will be the position of the center of gravity and the inclination of the trunk. If the skater is evaluated as good, he is awarded a score of 5 to 4 points, and he cannot make any of these two fundamental errors. If you make up to two non-fundamental errors, you can be evaluated as good. For the regular evaluation you can make up to four errors and achieve 3 to 2 points in correspondence with the number of errors. If he makes more than 5 to 6 errors, he evaluates badly and gets only one point.

3. Exit technique: it is the moment in which the skate is on the floor in an eversion position (toe of the skate outwards), to apply a force from the front towards where it is moving, and little by little the angle decreases to arrive to push aside.

4. Arrival technique: it is based on achieving the maximum amplitude of the lower extremities, going from a movement of a straight line technique, and a shifting center of gravity. The center of gravity should be located in the center of the base with the trunk parallel looking for stability. The tendency is to throw the trunk forward, but this movement shifts the center of gravity back, causing movement backwards, not forwards.

Points are awarded to the technical execution of each of these phases in accordance with their requirements, in the sum of each phase the maximum value that a skater reaches is five points, then the scores achieved in each phase are added and the score is issued. a final evaluation. It should be specified that the points that are awarded are in correspondence with the domain shown and the errors that are made.

The following scale is used to award the final evaluation of the 200-meter race.

Table. 1 Final Evaluation of the career technique.

Technical elements of the race	Good	Regular	Bad
Technique in line	4- 5	2-3	1

curve technique	4-5	2-3	1
exit or start	4-5	2-3	1
arrival at the goal	4-5	2-3	1
Total points .	20 a 16	12 a 8	4

Source: self made

Mathematical statistical methods were used to process the information obtained from the survey, observation and measurement. Empirical frequency distribution is used.

Results and Discussion

Results of document analysis

The objective of the analysis is to verify in the Skating PIPD, in the planning of the training of school skaters and in the lesson plan of this category, the treatment that is given to the technical preparation of school skaters. In relation to the technical work, it was possible to appreciate that in its objectives technical preparation is declared as a fundamental direction within the preparation of skating, given the technical demands of this sport.

Another of the indicators that is analyzed is whether the skating coach has the planning of the training of school skaters and the lesson plan, it was possible to verify that 100% of the coaches in this category have the planning of sports training, as well as well as the lesson plan in which one can appreciate how they conceive technical preparation in this sport, one of the fundamental directions for the preparation of school skaters

They have planned the work of technical preparation from the developer mesocycle, with a frequency of three times a week, they develop it in the main part. All the technical exercises are worked on first without skates and then with skates, taking into account the characteristics of the exercises to be used, it is explained in the lesson plans how the principle of individualization is fulfilled, in this case through the different formed

working subgroups. They always foresee the technical work at the beginning of the main part and dose through repetitions and time in correspondence with the activity to be carried out.

In general, the orientations of the program are aimed at preparing the school skater in the technical, physical, tactical, psychological and theoretical aspects, understanding that these athletes enter the high performance centers after passing through the base of the pyramid, the sports teams. Situation that is far from the reality of school skaters in the province of Villa Clara who, in their vast majority, enter the EIDE without having traveled through the base, which negatively affects their technical mastery.

Results of the observations made to training sessions of school skaters from the EIDE of Villa Clara

Six training sessions are observed indistinctly throughout the preparation macrocycle, two of them in each period, in which it was possible to appreciate:

That the systematicity with which the technical preparation is worked with school skaters in all the classes observed is three times a week, accentuating the special and competitive preparation. The two coaches that make up the population have their plan of classes or training sessions, with their objectives, by stages, content, pedagogical tests, among other information necessary to successfully complete the sports preparation of their athletes.

100% of the coaches use various exercises for technical work, an element that positively affects the teaching-learning process of sport, given the particularities of technical work, the use of games is not encouraged, which makes the process monotonous and demotivates to school skaters. The coaches work the technique correctly in the initial part of the training session, complying with its demands. An important element is that they take into account the work-rest relationship between the different exercises they use, even though they use the same time. and the same form of recovery for all skaters, neglecting attention to individual differences and the principle of individualization that is only sometimes appreciated in technical work.

In relation to the methods used for technical preparation, the ones that prevailed were: varied exercise, combined exercises and explanatory demonstrative, which reinforces the need to diversify and motivate skaters through other methods such as games and competition.

Results of the survey to the Provincial Skating Methodologist of Villa Clara

In the first question in relation to whether the province of Villa Clara has the necessary technical strength to work on skating in the different categories, his answer is negative,

and he emphasizes that this sport is one of the most depressed in relation to strength. technique and argues that this aspect has a negative impact on the results of the province despite the efforts made by the EIDE coaches, who cannot make up for this deficit and who are directly affected, a situation that also affects the development of this sport at the province level.

The aforementioned does not guarantee a selection of talents with quality and early sports initiation, since there are no coaches in more than nine municipalities of the province and thus the chain is broken on the path of high performance that in this sport begins in the sports combinations.

It is corroborated that the contribution of the municipalities with the enrollment to the Provincial Centers is almost nil since nine of the 13 municipalities that represent 69% do not have coaches of this sport, therefore, they cannot contribute or provide skaters of the school category as future enrollment of the EIDE of Villa Clara.

In the fourth question, they consider that the skaters who enter the EIDE do not have a technical preparation in correspondence with their category, and with many technical insufficiencies since the high performance pyramid is transgressed by entering this sports school directly without first having gone through sports initiation in sports teams, this sport is not in the Physical Education Programs either and it is very difficult for it to be addressed in sports for all since it requires the student to have skates and it is another of its limitations. Elements that directly affect the technical preparation of school skaters who enter the high performance of the province.

The coaches of the school skating category do not have guidelines, alternatives, or methodological actions, work algorithms that allow them to overcome these technical limitations in the skaters studied. Hence the need to study the subject and offer coaches alternatives to minimize the negative effects on the training of high-performance skaters and on the results of the province in this sport.

Results of the survey of skating coaches of the school category of the provincial EIDE of Villa Clara

The skating coaches of the EIDE of Villa Clara have more than 17 years of experience in their professional performance, with satisfactory results at the country level. In the first question, 100% believe that the PPID skating offers many exercises for technical work. , but it does not give precise guidelines in relation to how to do it, taking into account the characteristics of the different provinces and the particularities of school athletes.

All of the surveyed coaches work on technical preparation in correspondence with the stage of preparation they are going through, they agree that they work on technique three times a week, which is sufficient for athletes entering the EIDE. promoted from the teams and already come with some technical mastery.

In relation to the activities they use in the technical preparation they mention: varied, combined, explanatory and demonstrative exercises. I work on technical preparation at the beginning of the main part because it is the moment when the athlete's body is prepared to better receive and assimilate the training loads, taking into account individual differences and respecting the rest work between each exercise.

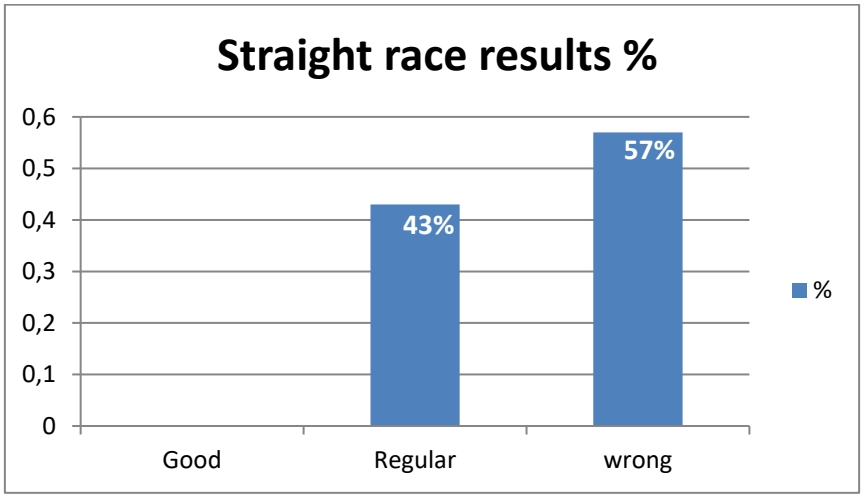
100% mention that in technical work they attend to the work-rest relationship and argue that it is a fundamental element in the treatment of workload and its indicators, the same % respond affirmatively that they attend to individual differences during technical work, aspect important in attention to individual differences since all skaters do not assimilate or develop the motor skills of this sport at the same rate.

When referring to the seventh question, they agree that some of the athletes who enter the EIDE in the school category do not know how to skate and argue that in recent years skaters have entered without having gone through the teams due to a lack of coaches at those levels, they know general elements of technique, but present difficulties in the technical domain. They are of the opinion that in the PIPD of this sport there are no concrete actions to give treatment to skaters who start in this category without knowing how to skate, a reality that the province of Villa Clara faces, since it does not have its technical strength covered in more of 69% of the municipalities of the province. There is no alternative or methodological precision that guides how to teach the technique and prepare these athletes to participate in competitions, a reality that is verified in Villa Clara

The two entrants of this sport in the EIDE consider it important to study the subject to improve the treatment of technical preparation in school skaters and to introduce new proposals, orientations or actions in different ways that help them to respond to the problem of the that they face in which they must prepare and arrange the skaters who enter the EIDE to participate in competitions, and on the other hand and starting point teach them the fundamental technical elements so that they participate and obtain good results in their category at the province level and country situation that could affect other provinces in the future.

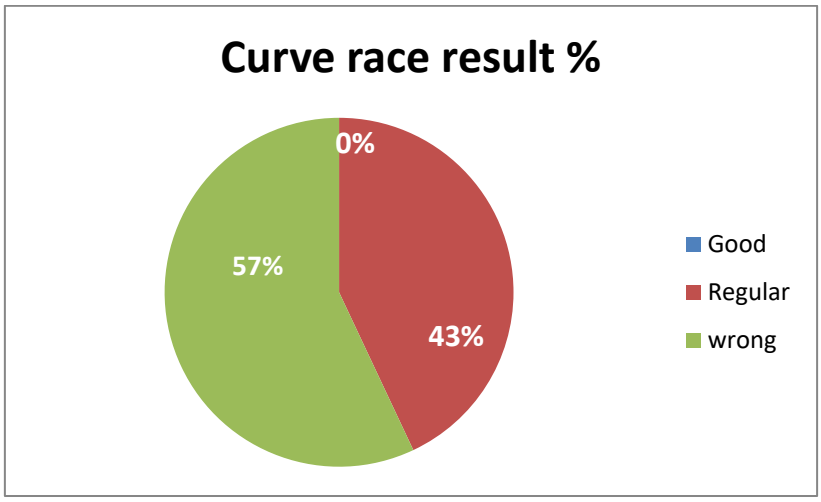
Results of the 200-meter test to know the mastery of the technique in school skaters.

The 200-meter race test was carried out in order to evaluate the technical mastery of school skaters in the start, straight race, curve and arrival at the finish line, taking into account the fundamental errors made by each skater, elements that are show below:



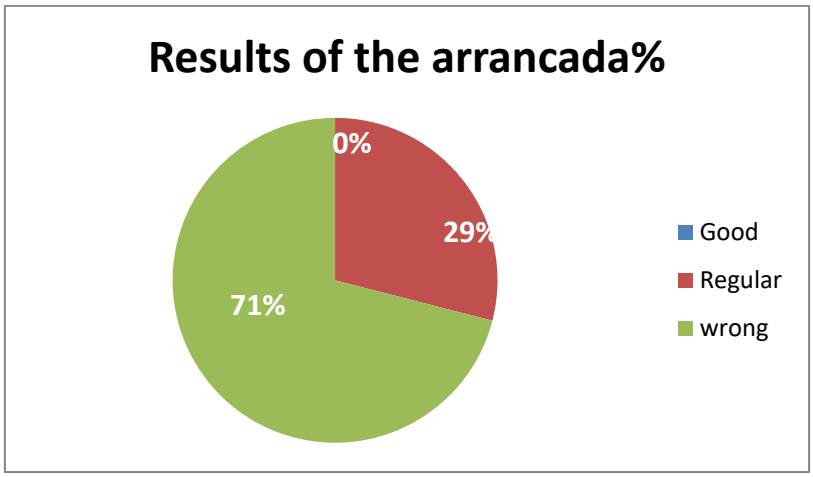
Graph 1. Results of the technical evaluation of the straight race.

As can be seen there are great difficulties in general. In the straight race, the greatest difficulty was observed in the recovery and descent of the leg, due to lack of balance and an incorrect position of the leg. In the pushes there were also difficulties due to not placing the edges correctly, so the pushes were not completely carried out. 100% of the skaters in this measurement are evaluated as bad and regular, three of them reach the evaluation of regular for 43% and the rest 57% evaluated as bad, which corroborates the technical insufficiencies of the school skaters who enter the the EIDE of Villa Clara.



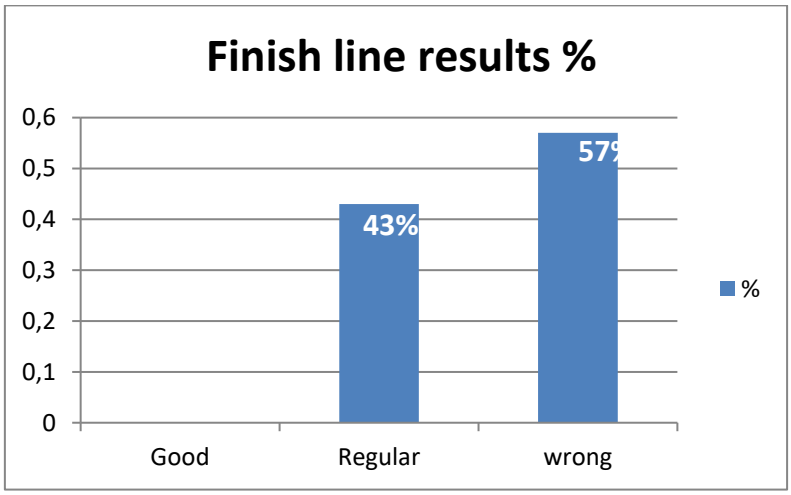
Graph 2. Results of the technical evaluation of the curved race.

In the curve the greatest difficulty was concentrated in the crossings and in the inclination of the trunk inward. Four skaters, 57%, were rated poorly and three, 43%, regular, which shows the technical inadequacies and the need to take another look at their preparation.



Graph 3. Results of the technical evaluation of the snatch.

In the start, no skater balanced, the transitory steps were closed and without the correct elevation of the knee, some did not coordinate arms and legs during the steps. Five were evaluated as poor, representing 71%, and two as regular, 29%. It is the technical element in which the school skaters under study have more technical deficiencies.



Graph 4. Results of the technical evaluation of the arrival at the finish line.

On arrival, the trunk was directed forward, thus losing balance when making the stride, which also presented difficulties when doing the foot stretch. Another common mistake was in the back leg that many couldn't keep on the first rubber of the skate. Four were

evaluated as bad 57% and three regular for 43%. Evidencing little mastery of the technique and the need for methodological actions that allow a different way of working the technical preparation in these skaters who enter the EIDE of Villa Clara and do not master the skating technique.

The results offered by the different methods and techniques used corroborate the technical insufficiencies that school skaters who enter the EIDE of Villa Clara have, hence the need and relevance of this research, a starting point for new interventions aimed at improving technical preparation. of the skaters under study and prepare them for future endeavors. Therefore, the following conclusions are reached.

Conclusions

The results of the diagnosis corroborate that the technical preparation of the Villa Clara school skaters who enter high performance is characterized by limitations in the technical domain. These in their entirety in the first measurement obtain evaluations of bad and regular.

In the straight race, the technical difficulties centered on the poor recovery and lowering of the leg, lack of balance and an incorrect positioning of the leg, in the curved race, little technical mastery in the crossings and in the inclination of the trunk, in the start they do not balance, in the transitory steps they do them closed and without the correct elevation of the knee and in the arrival difficulties in the position of the trunk and placement of the legs.

References

Estevez, C.M., Arroyo, M.M., González, T.C. (2006). Scientific research in Physical Culture: its methodology. Sports Publisher. Havana. Cuba.

Skating Strategy of the Province of Villa Clara for the four-year period (2021 - 2024). INDERVilla Clara. Cuba.

González, M. (2011). Methodological alternative of visual perceptive training to promote defensive motor efficiency in school boxers aged 13-14. Motor Action, 7.

Greek, C.O.; Ojeda, V.J. R., and Greek, C.E. (2020). Evaluation of technical-tactical blocking skills in initiation beach volleyball players. A proposal. Rev. Science and Physical Activity. Vol. 7, No. 2, Month July-December, 2020. Pages 57-72

Then, C. (2015). Some Considerations on Biomechanics, Technique and the Technical Model in Speed Skating. (It appears in Roller Training magazine

http://rollertraining.blogspot.com/2014/07/biomecanicatecnica-y-modelo-tecnico-en_21.html).

Mantilla, M.E. (2019). Race skating. Roller Skating Techniques. Skate the LIN. Editorial Kinesis. 127p.

Martynenko I.V. and Oreshkina I.N. (2020). Improvement of Technical and Tactical Skills of 14–16 Years-Old Short Trackers. Advances in Economics, Business and Management Research, volume 114 First International Volga Region Conference on Economics, Humanities and Sports (FICEHS 19)

Papadopoulou, S., Giatsis, G., Billis, E., Giannakos, A., & Bakirtzoglou, P. (2020).

Comparative analysis of the technical-tactical skills of elite male beach volleyball teams. Sport Science 13(1), 59-66. Somohano, G.RE; Mesa, DR. & Álvarez, B.YD. (2016).

Skating Athlete Comprehensive Preparation Program (2016). National Skating Commission. Havana. Cuba.

Rangel, S.E. & González, R.MS. (2012). Speed skating and visual perceptual training as distinctive elements in psychological preparation planning. Readings: Physical Education and Sports, Digital Magazine. Buenos Aires, Year 16, No. 166, March 2012. http://www.efdeportes.com/efd166/el-patinaje-y-el-entrenamiento-perceptivo-visual.htm

Zamora, R.L. del R., and Olivera, M.R. (2019). Diagnosis of the teaching-learning process of career skating techniques. Rev. Acción, 15. Retrieved from http://accion.uccfd.cu/index.php/accion/article/view/42 Number Vol. 15 (2019): January-December.