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Original article

Small games to develop the speed of translation in badminton for children

Juegos pequeños para desarrollar la rapidez de traslación en el bádminton infantil

Pequenos jogos para desenvolver a velocidade da translação em badminton infantil

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ABSTRACT

Games are the fundamental activity through which children develop physically and intellectually, hence the motivation to research the possible application of several of them in the badminton sports areas of the municipality of Pinar del Río. Taking into account the few games that are used to contribute to the development of physical



capacities in this sport, the objective is to elaborate games that develop the speed of translation with this purpose and thus improve the assimilation of this in children of 7-8 years old who practice this sport discipline. For this purpose, empirical methods such as observation and interview were used, within the theoretical methods the historical-logical, the analysis-synthesis, the induction-deduction and as mathematical statistic, the descriptive statistics and within it the percentage analysis were used. The proposed games contain the elements and methodological steps for their application, also including games for translation speed. With the use of these games, athletes feel more motivated in training when they develop this physical capacity.

Keywords: Games; speed; Badminton.

RESUMEN

Los juegos son la actividad fundamental mediante la cual se desarrollan física e intelectualmente los niños, de aquí la motivación de investigar sobre la posible aplicación de varios de ellos en las áreas deportivas de bádmiton del municipio Pinar del Río. Teniendo en cuenta los pocos juegos que se utilizan para contribuir al desarrollo de las capacidades físicas en este deporte, es que se plantea como objetivo elaborar juegos que desarrollen la rapidez de traslación con esa finalidad y mejorar así la asimilación de esta en niños de 7-8 años que practican dicha disciplina deportiva. Para ello, se emplearon métodos empíricos como la observación y la entrevista, dentro de los métodos teóricos se utilizó el histórico-lógico, el análisis-síntesis, la inducción-deducción y como estadístico matemático la estadística descriptiva y dentro de ella el análisis porcentual. Los juegos propuestos contienen los elementos y pasos metodológicos para su aplicación, incluyéndose además juegos para la rapidez de traslación. Con el empleo de estos juegos los atletas se sienten más motivados en los entrenamientos cuando desarrollan dicha capacidad física.

Palabras clave: Juegos; Rapidez; Bádmiton.

RESUMO

Os jogos são a atividade fundamental através da qual as crianças se desenvolvem física e intelectualmente, daí a motivação para investigar a possível aplicação de vários deles nas áreas desportivas de badminton do município de Pinar del Río. Tendo em conta os poucos jogos que são utilizados para contribuir para o desenvolvimento das capacidades físicas neste desporto, o objetivo é elaborar jogos que desenvolvam a velocidade de tradução com esta finalidade e assim melhorar a assimilação desta em crianças de 7-8 anos de idade que praticam esta modalidade desportiva. Para tal, foram utilizados métodos empíricos como a observação e entrevista, dentro dos métodos teóricos foram utilizados o histórico-lógico, a análise-síntese, a indução-dedução e como estatística matemática a estatística descritiva e dentro dela a análise percentual. Os jogos propostos contêm os elementos e as etapas metodológicas para a sua aplicação, incluindo também jogos para a velocidade de translação. Com a utilização destes jogos, os atletas sentem-se mais motivados no treino quando desenvolvem esta capacidade física.

Palavras chave: Palavras-chave: Jogos; Velocidade de translação; Badminton.



RESUMO

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INTRODUCTION

Games are essential for children. These are an important element for their multilateral and harmonic formation; their correct use is fundamental for the development of physical capacities that increase their performance, in addition to the maintenance of their health and for the formation of moral and social values.

Many authors consider the game as an important factor for both the physical and psychic development of human beings, especially in their infant stage which is directly and fully linked to play, due to the fact that besides being a natural and spontaneous activity to which the child devotes as much time as possible, through it his personality and social skills are developed, his intellectual and psychomotor abilities and, in general, it facilitates him to have experiences that teach him to live in society, to know his possibilities and limitations, to grow and mature *Ramírez et al., (2017)*.

For his part, Cazaux points out that the game is a valuable didactic resource for many reasons:

"The game integrates the affective, motor and cognitive dimensions of the personality... the being who plays is also the subject who acts, feels, thinks, learns, and develops. Then, play, as well as artistic activity is a link in the motor, cognitive, affective and social aspects" (*Díaz and Arencibia, 2016*).

Díaz and Arencibia (2016), elaborated a proposal that has its basis on how to transfer sports fundamentals through the game. That is, the game used as a mobilizing vehicle for the child, from the School Sports Initiation, then if a general motor development would be achieved, and at the same time, a carrier of the necessary values to positively influence the multilateral formation of the child.

To define the term game, according to *Martínez (2011)*, it is necessary to include the action and effect of playing, the recreational exercise subject to rules in which one wins or loses. *Terry Orick (Martínez, 2011)* also defines the game as an ideal means for positive social learning, because it is naturally active and highly motivating for most



children. When dealing with both definitions we must clarify that there is a close relationship between any technical element and the game, since the latter is the basis for the development of learning the basic elements of physical activity.

For its part, the game is a fundamental task for the correct and adequate physical, psychological and social development of the child. Children have the right to fully enjoy games and recreation, which should be oriented towards educational purposes, as their importance in the integral development of the individual is universally recognized (Ramírez, *et al.*, 2017).

Games can contribute in a positive way to the respect for rules of play, allow them to be able to imagine, undertake, develop and evaluate individual or collective actions or projects with creativity, confidence, responsibility, perseverance, self-knowledge, critical sense and cooperation, in addition to solving conflicts peacefully (Díaz and Arencibia, 2016).

Game is one of the first languages of the child, one of its most natural forms of expression, through it, the child will be discovering and knowing the pleasure of doing things and being with others, it is one of the most important means he has to express his most varied feelings, through the solution of problems in the realization of games, children develop creativity.

The most essential thing, in each game practice, is to have to give the children a general teaching more not special, that is to say that all play, although each one will not be required according to their possibilities and capabilities (Torres and Angulo, 2017).

Badminton is a game that has its own characteristics and one of them is the variable nature of their actions and tactical intentionality that must preside over the performance of each of the players (Arencibia and Diaz, 2014).

Rapidity and speed are different characteristics of human motor functions. Speed is a general property of the central nervous system, which is fully manifested in motor reactions and when executing very simple movements without overloading. Individual characteristics of quickness in all its forms of manifestation are conditioned by genetic factors and, therefore, the possibility of developing them is limited. The speed of movements or movements in space is a function of speed, strength and endurance, but also of the athlete's ability to rationally coordinate his movements according to the external conditions in which the motor tasks are performed.

It is also known as the capacidad to execute movements in the shortest period of time. The ability to give a motor response to a stimulus. The time it takes to travel a distance. The ability to move in the shortest possible time. Whatever the definition in sport, three elementary and integral forms of the manifestation are distinguished according to their qualities, which would be: set of functional properties that allow the execution of motor actions in the shortest possible time.

One of the characteristics of the game of badminton is that the player must perform correct steps when hitting. He/she has to move forward and backward in an accelerated way so his actions and tactical intentionality must preside over the performance of each of the players, having to combine physical training with technical and tactical training based on the need to print speed in their movements so we must combine physical and technical training with games based on the need for these children to develop their sports motor skills and physical abilities as this is their fundamental activity.



It is unquestionable that the correct execution of the movements of the game or sport depends on the individual capacities, but the coach also plays a role in this, which is why it was decided to interview the coaches of the municipality, who state that they have not been athletes and are specifically governed by what is oriented in the integral preparation of the athlete. The documents of the sport (Integral program of preparation of the athlete) were also reviewed, noting that there are no games for the development of conditional physical capacities, in which it is suggested to perform exercises for flexibility, strength, aerobic resistance, reaction speed and translation, only working them in the 13th and 24th week of the macro cycle, so it would be left to the coach's initiative to develop these physical capacities. In the interviews conducted with the children, some of them stated that they felt unmotivated after starting the systematic practice, others said that the most fun and pleasant thing is to play and that they would like to learn by doing everything through playful activities. Taking into consideration the analysis carried out, we proposed to elaborate small games to develop the speed of translation in 7-8 year-old children of the Badminton sports areas of the municipality of Pinar del Río.

MATERIAL AND METHODS

The 12 children who are training badminton in the municipality of Pinar del Río were chosen for the research, thus having a 100 % representativeness in relation to the population, this sample is intentional.

Theoretical and empirical methods were used, such as observation aimed at analyzing how physical capacities are developed in Badminton in 7-8 year-old children in the areas of Pinar del Río, in addition to corroborating the existence of the problem and defining the field of action. Another method used was the interview, which was applied to the Badminton coaches of the municipality of Pinar del Río to know their preparation on the development of physical capacities in their athletes and to the students to know their personal opinion on the trainings. Document analysis was also used to know the regularities and tendencies of the existing documents on the games for the development of physical capacities.

Descriptive statistics was used to tabulate the data through the calculation of percentages.

The measurement was applied by means of a physical test indicated by the national commission for these categories, which consisted of performing stretches of 30 meters in 7.5 seconds as maximum time to be performed; two time samples were also taken [Ramírez \(2013\)](#).

RESULTS AND DISCUSSION

In order to determine these characteristics of the development of this physical capacity in the 7-8 year old badminton players of the municipality of Pinar del Río, the physical test was applied and provided the following results: the athletes do not comply with the time regulations for their age, most of them do not have coordination in the strokes with the movements of the legs, they are slow at the moment of reacting to the stimulus at the start, they do not completely cover the distance running.



As a general result of the observations made during the training sessions, at the moment of applying the games, it was found that the teachers do not use a variant in more than 72 % of them. The objectives of the games are not pedagogically structured in 61 % of them. They do not use all the methodological steps to implement the games (93 %) nor to describe them (96 %), creating confusion in the students and trainers. They do not execute completely their demonstration in 54 % of the applied ones.

Most of the games do not arouse children's interest or motivation (73 %). They are almost always the same games (83 %), so there is no variety in them. In less than 65 % of the classes observed, no exercises for translation speed are developed. When exercises are performed, they are combined with technical exercises (20 % of the observed classes), so they prioritize their execution and not the physical capacity, although they are also performed as isolated exercises only for this capacity in 70 % of the classes. Exercises for this capacity are only used once a week. The exercises are executed correctly when they are used in isolation, not when they are combined with sport skills. In 78 % of the performance of physical exercises, they are unmotivated and uninterested.

Analyzing the results of the interview with the coaches of the sports areas, they clarify that they perform exercises for the translation speed capacity only once a week, and in the stage of general physical preparation, sometimes in isolation and combined with basic skills. The coaches have only completed a technical-methodological postgraduate course and in methodological activities of the combined sports teams, but these do not respond directly to their improvement in the sport. Other capacities are prioritized before speed. Within the program of integral preparation of the athlete, there are no exercises or games for the development of the physical capacity of speed.

An interview was also conducted with the athletes, showing that most of them (96 %) have been in the sport for less than 2 years. They state that their coach is very good with them in their sports activities. The majority (95 %) commented that sometimes the training activities are very heavy and boring. That few times a week (1 or 2 times) they do running games. 98 % say that they would like their activities to be through games and not through exercises as they do almost every day.

After having processed each of the instruments applied, it is clearly demonstrated the importance and necessity of the research to facilitate the work of the coaches and the preparation of the 7-8 year old athletes of the badminton sports areas of the municipality of Pinar del Río. For this purpose, several small games were used to develop the speed of translation in 7-8 year-old children of the badminton sports areas of the municipality of Pinar del Río.

In order to elaborate these games, the criteria of different authors who have been given the task of researching in this sport were taken into account, such as: [Martínez \(2011\)](#); [Ramírez et al., \(2013\)](#); [Rodríguez, Peña and Ruiz \(2016\)](#), in addition to taking into account the psychological, biological and motor characteristics of these ages.

First of all, some aspects that coaches should take into account when implementing small-sided games are described ([Ramírez Díaz and Arencibia, 2017](#)):

- Before the start of the game, create a psychological environment that favors the children's attention. Speak loudly, slowly and naturally. Be brief. Keep an order in the explanation. Demonstrate the game in a way that favors the total



understanding of the game. Previous organization of the group for the realization of the game.

- During the development of the game: that everyone participates in the game. Control the degree of motivation through different slogans (Who is going to win, who will be more agile, etc.). Demand from everyone according to their individual possibilities. Change the game or make variants before the interest is lost. Control the results.
- After the game has been played: ask the students for variants. Guide and help the student to understand the process that takes place within each game, trying not to direct in most cases. Observe the behaviors of the students in and out of the games to intervene at the right time, correcting non-educational behaviors.

Taking into account the difficulties in the application of the games of these coaches, we used the methodology proposed by the Master of Science Herminia Watson Brown for the execution of the game (Watson, 2008):

1. Enunciation of the game: to announce the name of the game to be played.
2. Motivation and explanation: it consists of the conversation or story that the teacher makes in order to interest the students in the activity, the explanation of the content and rules must be understandable, together with the description and the use of the audiovisual media of the games.
3. Organization and training: this includes everything concerning the distribution, appropriate selection of group guides and team formation.
4. Demonstration: part of the execution by the teacher of all the actions of the game clarifying its objectives in a simple way.
5. Practice of the game: at the teacher's signal, one or several repetitions of the game are carried out with some students or with the whole group, clarifying any doubts that may arise in order to facilitate the understanding of the game.
6. Introduction of the rules: during the practice of the game, the aspects that must be taken into account for the game to develop successfully are explained.
7. Development: consists of the execution of the game until the final result is reached.
8. Variants: after the game has been developed, the teacher can make variants (the students can also propose them) and together with these the introduction of new rules, using the same organization, the displacements can be changed, the complexity can be increased, etc., always fulfilling the proposed objective.
9. Evaluation: the results of the game, the efforts of the group and of the students in particular are evaluated and the winners are highlighted and everyone is stimulated in general.



Structure and methodological steps for the planning of small games for translational speed of 7-8 year olds from badminton sports areas (Watson, 2008).

Game # 1: name: Take your partner's place.

Objective: Running in a straight line for a distance of ten meters.

Materials: rubber cones.

Participants: from 20 to 25.

Organization: participants will be placed in two rows facing each other ten meters apart. The trainer at the training side.

Development: at the teacher's voice, the first player runs to the end of the front row after having touched the hand of the first member of the other row, who in turn will perform the same action.

Rules: nobody can leave before his teammate arrives. The winner is the team that finishes first.

Variant: make a lap of the row before touching the first one in the formation.

Game # 2: name: Choose your object.

Objective: to run in a straight line grabbing the preferred object.

Materials: flags and various objects.

Participants: 20 to 25.

Organization: participants will line up in rows behind the end line of the field. The teacher will be in front of all participants, i.e. on the side line of the field.

Development: at the voice of the teacher, the first player runs to reach the place where various objects will be placed inside the hoop, which will be 12 meters away, where they will select the one of their preference, moving it to the starting line where there will be another hoop in which they will place that object, and the other team members will do the same successively.

Rules: the object must be placed inside the hoop, not thrown. Nobody can leave before your teammate arrives. The team that finishes first wins.

Variant: Choose two objects.

Game # 3: name: Run with joy.

Objective: to run as fast as possible from one place to another.

Materials: flags.

Participants: 20 to 25.



Organization: participants will line up in rows behind the end line of the field. The teacher will be in front of all participants, i.e. on the side line of the field.

Development: at the coach's voice, the first player runs to a flag that will be located ten meters away, skirts the obstacle and returns to the starting line where he touches the hand of his teammate to continue the game.

Rules: Nobody can leave before your partner arrives. The team that finishes first wins.

Variant: complete a full lap to the flag at the end of the field.

Game # 4: name: Get there first.

Objective: to get there before your opponent.

Materials: rubber cones.

Participants: 20 to 25.

Organization: the participants (5) will be placed in rows at a distance of 2 meters between them. The trainer at the side of the formation.

Development: at the voice of the teacher, the last player in the formation (the 5th player) runs past the first player and takes his place again. When he passes by the 4th player, he touches his hand and the 4th player does the same action, and so on until the first player reaches the last player in the formation and takes his place again. All players will run around the whole formation before taking their place again.

Rules: The team that finishes first wins. Nobody can leave before being touched by your teammate. Everyone must run around the formation.

Variant: Do two laps of the formation.

Game # 5: name: Perfect Square.

Objective: to run in a straight line for a distance of 10 meters.

Materials: rubber cones.

Participants: 20 to 25.

Organization: participants will line up in rows at least 50 cm away from each other, with the same number of participants in each row.

Development: at the voice of the teacher, all the players in each row run until they reach an object for each member, which will be located 15 meters away, and return to the starting line.

Rules: The team that finishes first wins. It is necessary to skirt the object that is located at 15 meters.

Variant: increase the distance.



The game in children's education improves their faculties in general, achieves greater emotional balance (impulse control), strengthens their will and increases responsibility, develops the imagination, improves the spirit of self-improvement, increases the creative capacity, helps attention, improves the balance of mental and physical activity, is positive for the interpretation and respect for the rules, fulfilling functions of promoting and facilitating human bonds, developing language and thinking, enabling different types of learning (Arencibia and Diaz, 2016).

Games play an important role in badminton athletes at early ages, contribute to the development of will, responsibility and other personality traits very important to acquire the knowledge and skills in this sport, its variety plays a key role in the motivation of practitioners from early ages, which contributes to the efficient achievement of the objectives set (Arencibia and Diaz, 2016).

In general, games fulfill the functions of promoting and facilitating human bonds, which is an excellent link for the development of language and thought, and also enables different types of learning (Martínez, 2011).

It should be tried as much as possible to avoid specific teaching, to provide the child with much more global skills that will be very useful in later stages, children have to know how to move by knowing how to use various supports such as: running, throwing, handling and touching objects, moving around. The teaching process in the infantile age, plays a fundamental role so that the children can reach a correct integral development. For this reason, it is essential to have adequate learning of the basic fundamentals of badminton in their training stage (Torres and Angulo, 2017).

The development of Physical Education and Sport in childhood and adolescence, in its recreational, educational or competitive manifestations, requires as a central element, the recognition and respect for the principle of individualization, the selection of means and methods with scientific bases, together with a biological control of the pedagogical process González (2016).

The speed of translation is one of the main that the child badminton player must have to have positive competitive results in this sport, for which these exercises improve the general physical constitution and develop the will, decision, tenacity, among other virtues, we can also mention the development of skills and coordination of actions and reactions, flexibility, elasticity of muscles and mobility of the lower and upper limbs, improving the functions of internal organs. Through its practice not only improves the effect of the physical load but the emotional load, caused by the game according to the moment that the child is, this favors the integral formation of the child or practitioner.

Coaches do not value the importance of the conscious approach of the athletes to the activities in training and force them to blindly execute different tasks without making a correct analysis of the exercises beforehand; This decreases the performance of the actions and the interest in the game, affecting their creative initiative in the process of learning and improving the training, the fundamental aspect lies in the development of a broad base of performance in relation to physical and tactical abilities, technical skills and moral psychic qualities following a logical order the training that is aimed at developing them based on the sports performance capacity achieved.



Speaking of school sports training, it can occur, but more in institutions that offer programs outside of school hours, for those cases the author [Doscher, M. \(2006\)](#), involves many training philosophies, programs and equipment. This causes confusion among athletes as to what is the best way to train for their respective sport. It takes a lot of work and commitment to a logical training program that is appropriate for the sport so that the body reaches its peak performance. To reach peak performance there are no shortcuts or magic formulas, nor is it something that can be achieved instantly ([González, 2016](#)).

For the teaching of the sport of badminton, a large number of practical activities have been developed at different educational levels and it should be the teacher, depending on their students and their context, who decides which activities to use at any given time ([Fernández, 2011](#)).

After a year of training applying these games to the children, the physical test indicated by the national commission for these categories was repeated and some differences were seen, such as the fact that they completely cover the distance running, not walking. The 86 % of them comply with the time norms for their age, most of them improved the coordination of arms and legs, increased the latent instant of reaction to the stimulus of the exit that, although the speed of reaction was not worked directly, it was indirectly stimulated in the moments of the games, so they feel more self-confident in their execution.

It was also decided to observe again the training sessions to see how the teachers taught the games, where, in 95 % of their classes, they used the methodological steps for teaching the games, making their instruction easier, in a pleasant and enjoyable way for the athletes, feeling more motivated, who were allowed to propose some variant or modification of the game without changing its clear objective, constituting the best way of assimilation of this physical conditional capacity to improve the sports performance of these 7-8 year old children.

These games are only intended as a guide for the teacher who wants to develop badminton from a practice of speed.

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The authors declare not to have any interest conflicts.

Authors' contribution:

Maidelin Díaz Miranda: Conception of the idea, literature search and review, instrument making, Instrument application, compilation of information resulting from the instruments applied, statistic análisis, preparation of tables, graphs and images, database preparation, general advice on the topic addressed, drafting of the original (first version), review and final version of the article, article correction, authorship coordinator, translation of terms or information obtained, review of the application of the applied bibliographic standard.

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