

133 - REPLY TO IMPROVING AGILITY WITH SEMO TEST IN 13-TO-14-YEAR STUDENTS DURING BADMINTON COMPETITION

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1. INTRODUCTION

Badminton, a sport created in India over 200 years ago, which is practiced individually or in pairs, being a dynamic sport, agile and quick, it has grown and fascinated people, significantly increasing the number of practitioners in Minas Gerais, Brazil and the world. Some factors indicate the importance of badminton and physical development of the athlete/practitioner, such as physical fitness, reaction time, speed, anticipation, agility, among others. According to Fernandes (2003), badminton is assumed as a set of direct confrontation, very dynamic and complex, considered by many as the fastest racquet sport in the world.

Its history began around 1800, where British naval officers knew a sport called "Poona". The "Poona" was developed from a children's game that used a kind of racket and shuttlecock. The area of the racket head (the oval) was all leather and the shuttle was made from goose feather stuck in a kind of stopper, like what is used today. The goal then was to see how long the group could keep the shuttlecock in the air being hit with the racket.

After learning the traditional game called "Poona," the British officers took him to England, which developed and perfected the sport. One afternoon in 1873, the daughters of the Duke of Beaufort, took the game from the gardens to the Great Hall of the Castle Badminton, that was a family cottage, in order to escape the rain. The game seemed perfect for indoors, no wind to take the shuttle and cozy for the nobility. Soon after this development, the "Poona" was called "game of badminton" in honor of the properties of the Duke of Beaufort in Gloucestershire, England. Four years later Badminton had published official rules.

Currently there are 130 member countries of the IBF (International Badminton Federation), and the number tends to grow. Six tournaments are promoted by IBF: Thomas Cup (men's world championship team), Uber Cup (women's world championship team), Sudirman Cup (mixed team), World Championships, World Juniors and World Grand Prix Finals. Related to Brazil by the Brazilian Confederation of Badminton (CBBB) exist in the country today, about 2000 athletes affiliated to the seven federations in the states and an unknown number of practitioners who go to the 107 badminton courts marked in gymnasium. Badminton is played competitively in Brazil since 1984 and has no good expression in the sport around the world, but in the Pan American level is among the top eight national teams, and in the South America championship it always contest the first race in the male.

2. OBJECTIVE

It was planned a series of tests aimed at verifying the improvement of the agility of a group of students from Corina Ferraz de Brito School in the interclass sports championship which takes place during September and October of 2010, at the school. The tournament involves approximately 70% of elementary students, and is expected throughout the year, due to news related to sports and competitions. The sports available for disputes between the room or classes are basketball, futsal, handball, jump-hope, athletics (running and throwing) and badminton, with the latter, direct link on the research proposal. Tests were applied to students who practice and play badminton alternately or systematically. With this, check the improvement of the agility of these pre-teen students studying in Corina Ferraz de Brito School in Almenara - Minas Gerais. Emphasizing that students also practice other collective sports at school, and were presented and recently entered the new activity because of the current teacher of that school.

During the months of September and October, it was possible to live directly with six students from the 8th and 9th grades of primary school, age of 13 and 14 years of both sexes, being duly authorized by parents to perform the tests, which were selected and directly involved with the research proposal. It was a formal survey, having the Semo agility test as the principal reference. Thus, it was planned and used the test, because it shifts similar to those played in badminton. The test was used to measure, through practice, the development of agility within a period of nearly two months, and observe a possible improvement of physical performance of students who were regulars and others who were infrequent in physical education classes, comparing if really was an evolution of performance, related to the period of practice in interclass sports championship. In both students the test and the assessment tools used were identical, only occurring variation of amount of practice the sport during the research period. From the experiments performed in physical education classes during the research period, there was several physical conducts in the practice of badminton such as stretching, heating time, encouragement of students, etc. ..., in a way that could interfere directly in the research.

This work has the theme: " Reply to improving agility with Semo test in 13-to-14-year students during badminton competition", and has the proposal of seeing if there was improvement or improvements observed through statistical tests to which students were subjected, having their applications before the interclass championship contests in physical education classes and in extra periods (out of school hours).

From this pre-supposed, was made a planning of physical tests and evaluations, divided into three stages: the first at the start of research activities (start of competition), the second three weeks after the first test (through competition) and the last, at the end of the study (last day of competition). Thus, comparisons were tabulated in alternating periods of testing to verify the level of development to improve the agility and physical performance of students during the specified period which was originally proposed by the research.

3. METHODOLOGICAL PROCEDURES

The methodology was designed taking as parameters some tests and evaluations with their application in different periods at the beginning, middle and end of the study.

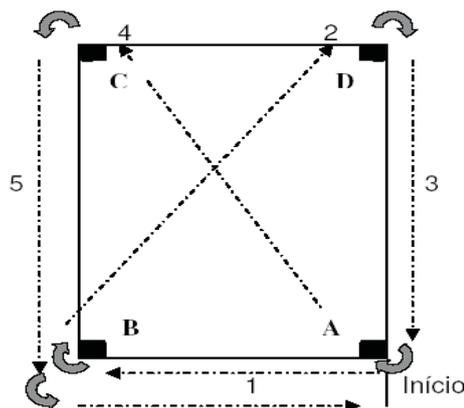
Samples from a total of six students, two women and four men aged 13 to 14 years, active practitioners and / or infrequent at physical education classes were used. All students are from the same institution, and thus were assessed at the same parameters established by the tests.

The tests were designed to verify and ascertain the level of advancement of physical parameters using the agility test given in the survey.

The SEMO agility test, was initiated by the protocol established by the own test, with the aim of measuring the overall agility of the body moving forward, backward and sideways. It is worth remembering and observing the movements of the test Semo resemble certain plays and moves of the badminton as the use of offsets most common side steps with crossed or not (pass chass) ahead or behind, from the basic position that can be described as alert position among others, thus showing a certain similarity in their movements. In the test is computed the result of the best of two trials performed by the testing. The testing can't cross his legs during the race side; in the back race the testing must remain so until it crosses the cone; as many attempts as necessary to perform the testing within the testing standard are given. It was given to each testing a practice attempt to become familiar with the test on alternate dates out of the research provided. The area for the test run is 3.60 by 5.80 meters, with four cones arranged in the corners of the rectangle, stopwatch (picture below).

According Pitanga (2004), agility is characterized by the ability to perform fast changes of direction and displacement of the center of gravity of the body. "It is a variable motor neuron characterized by an ability to make fast changes of direction, sense of displacement and height of center of gravity of the whole body or part of it (Marins & Giannichi, 2008 apud Matsudo, 1983, p.139).

Description and procedures of Semo test: the testing starts the test in a standing position behind the starting line, his back to the cone "A". When given the command "GO", he moves laterally over the cone "B," passing out of the cone and runs back up the cone "D", moving around inside of that. Then he runs forward until the cone "A" passing out, then runs back to the cone "C", passing inside. Then he runs forward, from the cone "C" up to the cone "B", passing out of it and finally runs laterally from cone "B" to the starting line.



The tests for planning were done as follows: first evaluation test at the beginning of September, the second evaluation test performed on the third week of the month and the third and final evaluation test was performed on the third week of October 2010.

We observed all conditions of execution from the first test, trying to get a higher degree of trust between the periods of testing. Performance comparisons of time and improving of the students' physical conditions during the research process were possible.

4. RESULTS AND DISCUSSION

Six 13-to-14-year students were assessed, who usually play badminton at least twice per week, with approximately an hour of practice.

Initially, it was found that the times of the Semo agility tests suffered significant differences between them. Comparing the results between the dates of execution, there was a decrease in time in "seconds" between the tests used at baseline (September) compared to the last (October). In the tests performed on days provided, relating to the 1st and the 2nd attempt, the results were almost similar, with small time differences between the trials, leaving aside the best result for both. The time differences were decreasing each application of tests, arriving to the margin of 2 seconds between the initial and intermediate test, and 1 ½ seconds compared to the final test. The sum and total difference of time was around 2 ½ seconds from the initial test up to final test.

Table I - Values of the initial tests, observing the times at the beginning of the study, with the referred age, sex and results of the Semo test times

Student	Sex	Test 1	Test 2
Age	1-male	1 st attempt	2 nd attempt
13/14 years	2-female	Semo/competition	Semo/competition
Student 1	2	16" 98	15" 29
Student 2	2	16" 52	15" 47
Student 3	1	13" 74	12" 80
Student 4	1	14" 54	13" 44
Student 5	1	14" 49	14" 36
Student 6	1	14" 44	14" 04

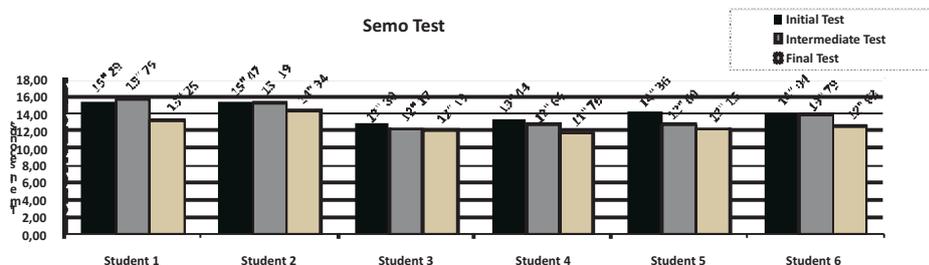
Table II – Values of intermediate tests, observing the times at the half of the survey, with the referred age, sex and the result of the Semo test times

Student	Sex	Test 1	Test 2
Age	1-male	1 st attempt	2 nd attempt
13/14 years	2-female	Semo/competition	Semo/competition
Student 1	2	15" 75	15" 80
Student 2	2	15" 19	15" 31
Student 3	1	12" 35	12" 17
Student 4	1	12" 66	12" 78
Student 5	1	12" 85	12" 69
Student 6	1	13" 79	13" 88

Table III – Values of final tests, agility improvement compared to previous tests, and in some cases a difference about 2 ½ seconds or more compared to the first (initial) test.

Student	Sex	Test 1	Test 2
Age 13/14 years	1-male 2-female	1 st attempt Semo/competition	2 nd attempt Semo/competition
Student 1	2	13" 25	13" 73
Student 2	2	14" 86	14" 34
Student 3	1	12" 29	12" 13
Student 4	1	12" 26	11" 76
Student 5	1	13" 01	12" 15
Student 6	1	12" 80	12" 63

Figure 1 – Levels of improving agility administered by – Semo test



5. CONCLUSION

Semo test applied to 13-to-14-year students had a decrease of time during the period of interclass sports competitions and thus, the improvement of the agility of students chosen for the research occurred. The total difference in time came to 2 ½ seconds, this was due to an improvement in physical fitness and, consequently, improved agility, caused by the practice imposed and effective by the badminton in a period of two months during the interclass sports competition.

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REPLY TO IMPROVING AGILITY WITH SEMO TEST IN 13-TO-14-YEAR STUDENTS DURING BADMINTON COMPETITION

ABSTRACT

The research was planned and carried out based on the badminton sport that, since its establishment in India over 200 years ago, which is practiced individually or in pairs, and being a dynamic sport, agile and quick, it has grown and fascinated people, leading to a significant increase of practitioners in Minas Gerais in Brazil and worldwide. The research aimed to verify by Semo agility test (Johnson & Nelson, 1979, Apud Marins & Giannichi, 2008.) a possible improvement in the level of agility in students practicing the badminton. The tests were applied during the interclass sports championship at Corina Ferraz de Brito School, the months of September and October of 2010 in Almenara, a town in Minas Gerais. Six 13-to-14-year students, duly authorized by their parents, participated in the research. The agility tests were applied and measured at three different times during the competition. It has seen in the competition a decline or decrease of time around "2 ½ seconds" of difference between the tests used at baseline (September) compared to the last (October). It is concluded that the Semo test applied in 13-to-14-year students practicing badminton, showed levels of improvement in agility (based on time) and the effective development of physical fitness as a result of practice and participation in competitions imposed during a period of two months.

KEYWORDS: Agility, badminton, Semo

REPONSE DE L'AMÉLIORATION DANS L'AGILITÉ AVEC LE TESTE DE SEMO CHEZ LES ÉLÈVES DE 13 et 14 ANS DURANT LES COMPÉTIONS DE BADMINTON

RÉSUMÉ

La recherche a été planifiée et réalisée en ayant comme base, la modalité badminton dès sa création en Inde il ya 200 ans. Etant un sport dynamique, agiler et rapide, il est pratiqué individuellement ou en couple. Il s'est développé en fascinant les personnes. Actuellement, il ya une augmentation expressive de personnes qui le pratiquent au Brésil, dans la région ou Etat de Minas Gerais, et dans le monde. La recherche a comme objectif de vérifier à travers le teste de l'agilité de Semo (Johnson &

Nelson, 1979, Apud Marins & Giannich, 2008), une possible amélioration du niveau de l'agilité chez les élèves qui pratiquent la modalité badminton. Les testes ont été appliqués durant le championnat sportif interclasses de l'École municipale Corina Ferraz de Brito, durant les mois de septembre et octobre 2010, en municipalité de Almenara, dans l'Etat de Minas Gerais. Six élèves de 13 à 14 ans autorisés par leurs parents, ont participé à cette recherche. Durant les compétitions, les testes de l'agilité furent appliqués et établis en 3 moments différents. On a alors remarqué durant la compétition, une diminution ou une augmentation de temps avec 21 secondes et demi de différence entre les testes appliqués au début de la recherche (mois de septembre), en rapport au dernier (mois d'octobre). En conclusion : le teste de Semo appliqué chez les élèves de l'âge de 13 à 14 ans pratiquant le badminton, met en évidence l'amélioration du niveau de l'agilité (en ayant comme base, le temps) et l'effective évolution de condition physique découlant des pratiques et participation dans les compétitions imposées durant une période de 2 mois.

MOTS CLÉES : Agilité, badminton, Semo

RESPUESTA DE LA MEJORA DE LA AGILIDAD CON EL TESTE DE SEMO EN ESTUDIANTES DE 13 Y 14 AÑOS DURANTE LAS COMPETICIONES DEL BÁDMINTON

RESUMEN

La pesquisa fue planeada y realizada teniendo como base la modalidad badminton que, desde su creación en India a más de 200 años, a cual es practicado individualmente o en parejas, y siendo un deporte dinámico, ágil y veloz, ha crecido y deslumbrado las personas, llevando a un aumento expresivo de practicantes en Minas Gerais, en Brasil, y en el mundo. La pesquisa tuvo el objetivo de examinar a través de teste de agilidad de Semo (Johnson & Nelson, 1979, Apud Marins & Giannich, 2008) un posible mejoramiento de nivel de agilidad en alumnos practicantes de la modalidad badminton. Los testes fueron aplicados durante el campeonato deportivo con juegos de aulas contra aulas de la Escuela "E. M. Corina Ferraz de Brito" durante los meses de septiembre a octubre de 2010, en la ciudad de Almenara en Minas Gerais. Participaron de la pesquisa 6 alumnos de 13 e 14 años con la permisión de los padres. Los testes de agilidad fueron aplicados y comparados en 3 momentos diferentes durante la competición. Fueron apuntados en la competición una disminución del tiempo, en torno de "2½ segundos" de diferencia entre los testes aplicados en el inicio de la pesquisa (septiembre), en alumnos practicantes de badminton de 13 y 14 años, comprobó niveles de mejoría de la agilidad (teniendo como base el tiempo) y la efectiva evolución del condicionamiento físico en el resultado de las prácticas y de la participación en las competiciones impuestas durante en periodo de 2 meses.

PALABRAS LLAVES: Agilidad, badminton, Semo

RESPOSTA DE MELHORIA DA AGILIDADE COM O TESTE DE SEMO EM ALUNOS DE 13 E 14 ANOS DURANTE COMPETIÇÕES DE BADMINTON

RESUMO

A pesquisa foi planejada e realizada tendo como base a modalidade badminton que, desde a sua criação na Índia há mais de 200 anos, ao qual é praticado individualmente ou em duplas, e sendo um esporte dinâmico, ágil e veloz, tem crescido e fascinado as pessoas, levando a um aumento expressivo de praticantes em Minas Gerais, no Brasil e no mundo. A pesquisa teve o objetivo de verificar através do teste de agilidade de Semo (Johnson & Nelson, 1979, Apud Marins & Giannich, 2008.) um possível melhoramento do nível de agilidade em alunos practicantes da modalidade badminton. Os testes foram aplicados durante o campeonato esportivo interclasses, da E. M. Corina Ferraz de Brito, nos meses de setembro e outubro de 2010, no município de Almenara em Minas Gerais. Participaram da pesquisa 6 alunos de 13 e 14 anos devidamente autorizados pelos pais. Os testes de agilidade foram aplicados e aferidos em 3 momentos distintos durante as competições. Foram apontados na competição uma diminuição ou decréscimo do tempo, em torno de "2½ segundos" de diferença entre os testes aplicados no início da pesquisa (setembro), em relação ao último (outubro). Conclui-se que, o teste de Semo aplicado em alunos practicantes do badminton de 13 e 14 anos, evidenciou níveis de melhoria da agilidade (tendo como base o tempo) e a efetiva evolução do condicionamento físico em decorrência das práticas e da participação nas competições impostas durante um período de 2 meses.

PALAVRAS CHAVE: Agilidade, badminton, Semo