169 - LEVELS OF COAST PERTAINING TO SCHOOL FLEXIBILITY OF THE BRAZILIAN AMAZÔNIA

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INTRODUCTION

This study is a resulted of research, referring to the flexibility of pupils, at Municipalized Basic Education School, in a coast municipal area, in a district 300km long of Porto Velho City. Data collected for a Physical Education teacher , together with other variable, would serve as information for planning to lessons that would be given during 2007 school year .

It was verified flexibility of 49 pupils age group 6 to 15 years old , from grades of basic education. This institution has a director, some teachers and staff of support. The structure of the school is small in a also small land that supports a compatible number of pupils in its structure. This structure is composed by a room destined to the direction, three classrooms, a canteen, a kitchen and a refectory. In this school they attends 55 pupils, offering courses of 1° to 5° year of basic education in two the periods, in the morning and afternoon.

The available material for classes of Physical Education was summarized in 8 balls of initiation, two of volleyball, two of soccer society, three long cushions, a volleyball net and some toys.

It was decided to publish these referring results to flexibility for: a) to be the first time that school received a teacher from Physical Education to work with those pupils, being that the data had been collected a semester period of learning, that offered two classes a week to the pupils in the second semester of 2006; b) flexibility is considered a parameter of the related physical attitude to health; c) to be rare or inexistent, the studies on flexibility carried through with marginal in the schools of Porto Velho City

THEORETICAL BASIS

Flexibility has been understood as the express capacity functionary-systemic for the radius of action of a joint or groups of joints in one determined direction, inside of its functional physiological limits (MELO, 2005). This component of the related physical aptitude to the health allows the amplitude of the movements and the protection necessary to prevent injuries to articulate, being that the deficiency of this quality makes it difficult or hinders the learning of definitive motor activities, as well as limits the amplitude of the movements and the rapidity of its execution, also intervening with the execution of daily tasks (MELO, FREIRE et alli, 2003a, b).

For these reasons, the idea of that minimum levels of amplitude to articulate are necessary for a good quality of life are well accepted e, therefore, “flexibility more comes being incorporated each time to the quarrels on physical activity in a generalized manner” (FARINATTI, 2000:85). Therefore, flexibility is considered an important component of the physical attitude, which is defined as being the capacity to carry through daily activities with vigor and energy and correlates with less risk of degenerative chronic illness.

To develop flexibility, researchers recommend about 3 sessions a week of static exercises of some stretches, kept for 10 to 30 seconds and repeats 3 or 5 times for each important articulation of the body, being that vigorous sessions of stretch must be preceded by active a aerobic heating, mainly races and cycling (NIEMAN, 1999).

In this direction, a minimum amount of 3 classes a week of Physical Education must be offered to students, because the objectives of physical activity is a promotion of the health, to improvement of the components to physical attitude related it:

a) Cardiopulmonary resistance (maximum VO2); b) force; c) flexibility; d) located muscular resistance); and e) corporal composition (MELO, 2005). Specifically with regard to flexibility, Silva and Rabelo (2006) affirm exactly that its loss (reduction) strong is characterized by the sedentary style of life, considering the factor aging.

Considering the importance to remain satisfactory levels of physical attitude don' to have relation with health and quality of life of the people, the school has an important paper ,offers to students Physical Education , because physical activities wake the taste and conscience of the relevance to remain activity represents before and after school life. Studies detaches that the level of physical activity starts to diminish in the adolescence and if aggravates throughout the age (BRASIL, 2002).

This situation can be improved with investment, infrastructure and enabled staff to offer attendance, therefore the situation still more is complicated when it is about individuals low-level economic and disabled, predominating between the women and the aged ones (BRASIL, 2002).

MATERIALS AND METHODS

This is a descriptive research, quantitative type. The sample composes in 49 students, 28 girls and 21 boys, age group 6 to 15 years old, registered 1ºto 5° year of basic education.

The referring data to flexibility had been collected from the following equipment and protocol: Big box (Caixote) made by wood, constructed by the teacher and pupil's parents measuring 30 x30 x 30 cm with a metric scale of 50 cm, same space out and settled in the superior part of the equipment.

The protocol of indirect and linear measurement of flexibility of Wells and Dillon with the purpose was followed to verify the thorax-back and pelvic flexibility of active form, verifying the biggest possible horizontal distance reached by the pupil. There were 2 assessors to be used: 1 assessor(a) to demarcate and to write down the mark reached for being evaluated; 1 assessor (b) to keep the knees of the pupil in complete extension. The assessors had been distributed in the place of test to following form: assessor “a” laterally the right of evaluating, a little its front, to the side of caixote; and assessor “b” located of the left side of the pupil (RODRIGUES OF ALMEIDA, 2002; MELO, 2005).

For the accomplishment of the test, first the pupil if located seated, being the trunk in 90° with the inferior members, being these in complete extension being with the region plantar of the feet supported in flexometre, the arms extended to the front with the overlapped dominant hand to the other hand. After that he carried through flex the trunk in front of soft, gradual and continuous form looking for to reach with the dactyls, without modifying the previous position, the possible point equidistant in relation to the initial position. When an assessor “a” with a transverse plan in relation to the metric scale demarcates and writes

down the mark reached for evaluating (RODRIGUES de ALMEIDA, 2002; MELO, 2005).

The test was carried through without heating, for two consecutive attempts and computed best of them as resulted the final one, which were express in centimeters (RODRIGUES de ALMEIDA, 2002; MELO, 2005).

Objectifying one better understanding still measured:

a) The corporal weight, that is the result of the system of gravity forces on the mass of the body (Matsudo, 1987), being used an electronic scale of the mark FILIZOLA, model 31, manufactured for industries FILIZOLAS, with capacity stops up to 150 kg and 100 precision of g. It was proceeded measured it using 2 assessors, being: 1 assessor (a) to proceed the reading from the measurement; and 1 assessor (b) to write down the results. The assessors had been distributed in the place of test of the following form: assessor "a" situated one laterally to the right; e assessor "b" located laterally the left of evaluating. The measure was carried through with the equipment located in ground been even, being evaluating in foot, erect position with the high head, located of back to the scale and in the center of the platform of the scale, with the relaxed arms throughout the body and in fast lateral removal of legs being the divided corporal weight enters these (adapted of Lehman, apud RODRIGUES de ALMEIDA, 2002).

b) The corporal stature, that is the linear length between the transverses plans that tangencies a vertex and plantar region (MELO, 2005), being used one estadiometer of the electronic scale of the mark FILIZOLA, model 31, manufactured for industries FILIZOLAS, constituted of a scale graduated equality with 0,1 precision of mm. During the measure had been equality using 2 assessors, being: 1 assessor (a) to handle the equipment and to proceed the reading from the measurement; e 1 assessor (b) to write down the results. The assessors had been distributed in the place of test of the following form: assessor "a" situated laterally the right; e appraiser "b" located laterally the left of evaluating. It was become fulfilled measured it with the bare-footed pupil, being the heels, the backsides, the waist to scapular and the occipital region of the same in contact with the graduated vertical scale, and the head guided in the plan of Frankfurt. To proceed with the reading from the measurement being evaluated it carried through a deep inspiration (apnea), with the appraiser dislocating the cursor transverse for the scale until the support in vertex (Petroski, 1999).

The data had been organized per pertaining to school year (series), tabulated and analyzed in the program Microsoft Excel 2007, where if it made the calculations of average and shunting line standard and the results are presented in tables for better understanding.

RESULTS AND DISCUSSION

Here are presented to follow it the referring data in accordance with flexibilities the pertaining to school year (series), where the students met registered at the moment of the tests. Aiming at one better understanding of these results, the information of flexibility to the age and the physical characteristics had been joined it corporal weight and corporal stature.

Table 1: Referring results to the pupils of Basic Education Grade First.

VARIABLE	FEMININE	MASCULINE
Age	6 ÿ 0	6 ÿ 0
Weight (kg)	19,99 ÿ 2,22	25,95 ÿ 4,60
Stature (cm)	116,5 ÿ 0,04	120 ÿ 0,01
Flexibility (cm)	23,33 ÿ 4,56	20,5 ÿ 3,53

When comparing itself, the referring results to the flexibility of the students of grade first with second grade is verified that exactly these having a superior average age, had presented one better flexibility. Still thus, the average of 29,37 (cm) for girls and 23,07 for the boys, are inferior to established as the established value to classify these pupils as possessing of an average flexibility (table 1 and 2).

Table 2: Referring results to the pupils of Basic Education. Grade Second .

VARIABLE	FEMININE	MASCULINE
Age	8,5 ÿ 3,0	7,71 ÿ 0,75
Weight (kg)	29,32 ÿ 16,32	24,14 ÿ 3,01
Stature (cm)	129,75 ÿ 0,16	123,07 ÿ 0,04
Flexibility (cm)	29,37 ÿ 3,72	23, 07 ÿ 3,81

Analyzing the average values of flexibility of Grade Third, it can be observed that this was the only group where the boys (21 cm) had presented superior values the girls (15 cm). However, both groups (feminine and masculine) present an index of flexibility below of the average suggested for general populations.

Table 3: Referring results to the pupils of Basic Education Grade Third ..

VARIABLE	FEMININE	MASCULINE
Age	9,75 ÿ 1,5	9,33 ÿ 0,51
Weight (kg)	30,5 ÿ 6,0	27,18 ÿ 3,19
Stature (cm)	138,75 ÿ 0,09	133,33 ÿ 0,06
Flexibility (cm)	15 ÿ 8,04	21 ÿ 6,81

The pupils of Grade Fourth, as well as those of the previous series present flexibility (25,65 feminine group and 17,05 masculine group) when compared the studies as of Guedes et al. (2002), that although to have studied teenagers of 15 -18 years old.

Table 4: Referring results to the pupils of 4° year of Basic Education.

VARIABLE	FEMININE	MASCULINE
Age	10,1 ÿ 0,32	12,5 ÿ 0,71
Weight (kg)	29,19 ÿ 4,99	38,9 ÿ 11,45
Stature (cm)	133,25 ÿ 0,07	152,5 ÿ 0,06
Flexibility (cm)	25,65 ÿ 7,81	17,05 ÿ 17,67

The pupils of Grade Fifth had also presented average flexibility below of the suggested one as average value for

general populations. These results worry, therefore being children they would have to present index of flexibility higher than the suggested one, since it is consensus in the literature that flexibility reduces as the age if it raises.

Table 5: Referring results to the pupils of Basic Education Grade Fifth

VARIABLE	FEMININE	MASCULINE
Age	12,25 ÿ 1,9	12,5 ÿ 0,57
Weight (kg)	33,45 ÿ 7,87	32,85 ÿ 5,50
Stature (cm)	141 ÿ 0,10	143,5 ÿ 0,05
Flexibility (cm)	22 ÿ 5,22	20,75 ÿ 1,5

These results are similar to found for Melo and Freire et alli (2003a, b) in pertaining to school of 11 - 14 years old of a municipal and state Public Education Net. However, the incipience of works carried through with the studied age group makes it difficult the acquisition of similar studies to be used as reference.

However, with relation specifically to the pupils of the present study, the low levels of flexibility can be justified in the fact of being the first time that the school of this community offered lessons of Physical Education to its pupils.

FINAL CONSIDERATIONS

The level of flexibility of the studied pertaining to school was considered very low, however, they are similar to the found ones in studies with teenagers of the urban schools of Porto Velho city. On the other hand these studies point with respect to the necessity of act of contract of teachers for the initial grades, therefore the city still prioritizes the attendance to the pupils of Grade Sixth to Ninth , being many the schools of infantile education and initial series that are without lessons of Physical Education. Still thus, the schools that possess professional qualified for this discipline curricular, offer to only two lessons per week contradicting the minimum recommendation of the literature of three sessions weekly so that if reach the benefits of the exercises of along for flexibility. One also suggests that beyond if having qualified professional, it must have a program of regular evaluation in the school.

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LEVELS OF COAST PERTAINING TO SCHOOL FLEXIBILITY OF THE BRAZILIAN AMAZÔNIA

ABSTRACT:

This is a descriptive research, of the quantitative type, being the sample was composed for 49 students, being 28 of feminine sort and 21 of the masculine, of 6 to the 15 years of age, regularly registered of 1° to 5° year of basic education. We measured it flexibility with the protocol of indirect and linear measure of flexibility of Wells and Dillon, the corporal weight and the corporal stature (MELO, 2005). A very low level of flexibility in all was evidenced the evaluated groups (1°, 2°, 3°, 4° and 5° year). The study necessity pointed it to extend the offer of lessons of Physical Education in the initial series.

KEY-WORDS: flexibility, student coast school, school physical education.

NIVEAUX DE FLEXIBILITÉ D'ÉCOLIERS RIVERAINE DE L'AMAZONIE BRÉSILIENNE

RÉSUMÉ :

Celle-ci est une recherche descriptive, du type quantitatif, en étant l'échantillon s'est composée de 49 étudiants, en étant 28 du type féminin et 21 du masculin, de 6 à 15 ans d'âge, régulièrement inscrits de la 1° à la 5° année de l'enseignement fondamental. Mensurou la flexibilité avec le protocole de mensuration indirecte et linéaire de flexibilité de Wells et de Dillon, le poids corporel et la stature corporelle (MELO, 2005). S'est constaté un niveau de flexibilité très bas dans toutes les groupes évalués (1°, 2°, 3°, 4° et 5° année). L'étude il a indiqué pour que la nécessité élargissent l'offre de leçons d'Éducation Physique dans les séries initiales.

MOTS-CLEFS: Flexibilité, écoliers riveraine, éducation physique scolaire.

NIVELES DE FLEXIBILIDAD DE ESTUDIANTES DE ESCUELA RIBEREÑA DEL AMAZONIA BRASILEÑO
RESUMEN:

Esta es una investigación descriptiva, del tipo cuantitavo, siendo que fue realizada con 49 estudiantes: 28 del género femenino y 2l del género masculino, entre 6 y l5 años de edad. Matriculados regularmente del 1° al 5° año de educación básica. Se verificó la flexibilidad con el protocolo de medición indirecta y linear de la flexibilidad de Wells y Dilón, el peso corporal y la estatura corporal (MELO, 2OO5). Se constató un nivel muy bajo en todos los grupos evaluados (1°, 2°, 3°, 4°, 5°años). El estudio apuntó la necesidad de ampliar la oferta de clases de Educación Física en las series iníciales.

PALABRAS CLAVES: Flexibilidad, estudiantes ribereños, educación física escolar.

NÍVEIS DE FLEXIBILIDADE DE ESCOLARES RIBEIRINHOS DA AMAZÔNIA BRASILEIRA
RESUMO:

Esta é uma pesquisa descritiva, do tipo quantitativa, tendo como amostra 49 estudantes, sendo 28 do gênero feminino e 21 do masculino, de 6 à 15 anos de idade, regularmente matriculados do 1° ao 5° ano do ensino fundamental. Mensurou-se a flexibilidade com o protocolo de mensuração indireta e linear de flexibilidade de Wells e Dillon, o peso corporal e a estatura corporal (MELO, 2005). Constatou-se um nível de flexibilidade muito baixo em todas as turmas avaliadas (1°, 2°, 3°, 4° e 5° ano). O estudo apontou para a necessidade ampliar o oferecimento de aulas de Educação Física nas séries iniciais.

PALAVRAS-CHAVE: Flexibilidade, escolares ribeirinhos, educação física escolar.