123 - STUDY OF MOTOR DEVELOPMENT: AGE RELATIONSHIP BETWEEN MOTOR AND GENERAL SCHOOL CHRONOLOGICAL AGE.

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INTRODUCTION

Motor development according to Gallahue; Ozmun (2005) is the change in motor behavior continues throughout the life cycle, provided by the interaction between the needs of the task, the individual's biology and environmental conditions. In middle childhood, school age, is the stage where the child emerges a breakthrough in their motor development, acquiring a wide variety of motor skills and is also the stage where there is a great progress in learning.

In this context I came up to school and specifically the physical education classes. Once this is due care to justify the practice of any motor activity and therefore any movement involving the human body interacting with the medium (Ghilardi, 1998 p. 01). Corroborating, Freire; Oliveira (2004) mention that Physical Education in school's role is to prepare individuals for autonomy in using their potential engine.

Human development is governed by a complex interaction of several factors. Rosa Neto et al (2007) emphasize the cognitive, affective, motor and psychosocial, which intertwined, featuring a continuous process with an ontogenetic sequence similar, differing only in the speed at which the changes occur. Accordingly Rosa Neto et al. (2010) stated that cultural factors are responsible for the differences in acquisition of basic skills, but despite this development there is a sequence almost predictable with respect to what, and when that amount can be acquired, when situations arise Following that exceeds normal limits said, it acquires characteristics of diversion.

Starting from this, it is possible to say that children of the same age may or may not show similar levels of development, since their motor experiences, which are more similar to never be totally equal. Accordingly, Fonseca; Beltrame; Tkac (2008) argues that studies involving motor development should take into account not only the changes in the subject in development, but also on the surrounding environment.

The environmental, social and economic development have a strong influence on the motor. When the middle child nurture a wide and rich opportunity to experience motor and a favorable environment for development of enhanced standards mature fundamental movement and consequently an improvement of learning and overall development of the student. (GALLAHUE; OZMUN, 2005; FONSECA; BELTRAME; TKAC, 2008; TEIXEIRA et al 2010).

Through the relationship of General Motor Age (IMG) X Chronological Age (IC), and general motor quotient can pinpoint delays or advancements in motor development compatibility of these schools.

In this sense it is necessary to assess the stage of motor development of children, especially school age, to know the level of motor development in which students meet, and thus able to intervene in a systematic way and intentional. The motor assessment for physical education professionals should be routine in schools, because it enables better diagnosis of the child in this aspect. A thorough understanding of its possibilities and limitations lead the actual triggering of a planned intervention, (ROSA NETO et al, 2010, p. 192)

Therefore this study was aimed to know the level of motor development by comparing the motor age with chronological and Motor Quotient overall student a public school, the peripheral region, the city of Montes Claros-MG.

MATERIALS AND METHODS

This study consists of an exploratory research, a descriptive, cross-sectional and quantitative data analysis.

The study population was composed of students aged 8 and 9 years, a public school located in the peripheral region of the city of Montes Claros-MG. The sample consisted of 20 students, of both sexes between the ages of 8 and 9 years.

The instrument used for data collection was the Motor Development Scale (EDM), validated by Rosa Neto (2002). This range comprises a diverse set of evidence and graduated difficulty assessing motor development around seven variables, Fine Motor, Motricity Global, Balance, Body Scheme, Space Organization, Organization Temporal and Laterality. In this study the variable Laterality was not evaluated because it has no importance for obtaining a Age general motor (IMG). The motor level of each student was established from Motor Age (IM), which consists of an arithmetic procedure for scoring and assessing the results of tests on each variable, expressed in months, and General Motor Age (IMG), which obtained by adding the ages motor (IM) of each variable, expressed in months. The IMG was associated in this study with Chronological Age (IC), which gives the date of birth of the child, usually given in years, months and days, which will be turned into months.

Each test battery of tests marks a step ripening, ranging from two to eleven, for this study the tests were performed from the age of six, regardless of the chronological age of the child, if the child managed the successful test of six years she would be able to make the seven years and so on.

Data were analyzed by using the SPSS 16.0 software for Windows. Initially resorted to using descriptive statistical procedures with maximum, minimum, average and standard deviation for sample characterization.

This study was substantiated by the opinion of the ethics committee. At all stages of the research was preserved the confidentiality of information obtained during data collection and identity of employees avoiding any embarrassing situation of parents and or guardians. The heads of each participant signed a consent form that guarantees anonymity and privacy and meets the ethical principles defined by the National Health Council - CNS/2003 - through Resolution 196/96 for conducting research on human subjects.

PRESENTATION AND DISCUSSION OF RESULTS.

Table 1 - Chronological Age, Age General Motor Variables and Motor Development.

	N	Mean	Standard Deviation
IC	20	109,50	5,978
IMG	20	92,50	9,913
Fine Motor	20	104,10	23,301
Motricity Global	20	98,70	19,318
Balance	20	88,80	21,642
Body Scheme	20	97,80	19,957
Space Organization	20	82,80	13,983
Temporal Organization	20	81,60	22,229

Source: Data collected by the researcher.
The values of the variables described above are expressed in months.

You can check that school students have a delayed motor development, since its IMG points on average below their IC, which are respectively IMG = 92.50 months will referent 7 years and 8 months and the IC = 109.50 months, referring to 9 years and 1 month; According these results there is a delay of approximately 1 year and 5 months which equates to 17 months in its development engine.

Teixeira et al (2010), which describes the development engine is the result of an interaction between organism and environment, so if you have a supportive environment can make better use of motor development. In this sense it can be inferred that factors such as the environment may reflect motor development of the students evaluated in this study, type of house, frequented spaces for leisure, space activities within the school, all can affect the development of students.

Contradicting data and the above statement (Teixeira et al, 2010 p.27) puts an important fact to be mentioned in this discussion:

> Na idade escolar, as crianças de classe econômica baixa apresentavam maior liberdade de movimento, quando comparadas com crianças de classes mais favorecidas. Assim, assume-se que com a maior liberdade das crianças de classes economicamente mais baixas haveria a oportunidade de aprimorar habilidades motoras.

Papst; Marques (2010) in a study with a population also comprised students from a public school, with the average approximate ages, around the equivalent of 114.8 months to 9 years and 6 months were more than 5 months the students in this study also found values that shape delays in Motor Development, they obtained the IMG about 8 years and 6 months (102.5 months), with a delay of 1 year (12 months). The author comments that the development of the components of human movement is allied to several factors, such as biological and environmental factors, the opportunities to practice motor skills and eating habits.

Students at the school had delayed in all variables, Fine Motor IM = 104.1, delay of 5 months; Motricity Global IM = 98.70 delay of 11 months; Balance IM = 88.80, delay of 21 months (1 9 months), Scheme Corporal IM = 97.8, delay of 12 months (1 year); Space Organization IM = 82.80, delay of 27 months (2.3 months) and the Temporal Organization IM = 81.60 delay of 28 months (2.4 months) compared to HF.

For Rosa Neto (2002), success in activities that involve fine motor, requiring coordination between object / eye / hand, varies depending on the child's level of learning and development of their motor development. This fact can be related in this study with motor development. It was noticeable lag in the population studied learning. There was also a large gap in global motor function, which is related to the whole body.

With regard to the balance and Ozmun Gallahue (2005), puts it at about 7 years of age children are already able to stand even with closed eyes, improving the ability to balance up with increasing age, This assumption is not got trust since the group evaluated results obtained below average for their IC, and because they are children aged 8 and 9 years.

Moreover grandson Rose (2002) argues that there are strong relationships between changes or shortcomings in the balance, and the concentrated state of anxiety and insecurity. This fact comes out and may be the explanation for the poor results of this variable in both groups, since students often conceived of as an activity test of school evaluation, and sometimes it was noticeable anxiety and concern in obtaining good performance over the tests.

Another variable in the group of students surveyed had below average results was adequate Scheme Body, Fonseca (1995) argues that the notion of the body takes place between 10 and 12 years old, a fact that could be related to the poor performance of students surveyed who were aged between 8 and 9 years.

The variable temporal organization deserves special attention, because this, students of the school had the worst performances. Rose grandson (2002) points out that the aspects of time perception evolve and mature according to increasing age. This statement alleviates the low performance of public school students.

Table 2 - General Motor Quotient (GMQ).

	Average	Standard Deviation
QMG	84,20	7,845

The General Motor Quotient (GMQ) is a value obtained by dividing the General Motor Age (IMG) and chronological age (IC), multiplied by 100, this operation expresses a value, which is rated on a reference table according to EDM.

TABLE 3 - Classification of results of general Motor Quotient (GMQ).

GMQ	Classification
69 or less	Very Low
70-79	Lower
80-89	Normal Low
90-109	Normal Medium
110-119	High Normal
120-129	Superior
130 ou mais	More Much Superior

Fonte: Rosa Neto (2002).

The average General Motor Quotient (GMQ), obtained by the students of the public school is classified as Low Normal, and 50% of students were classified Normal Low (n = 10) and 30% as Normal Medium (n = 6), 15 % classified as lower (n = 3) and as far below 5% (n = 1). These data reflect the variables found in motor development discorridas above.

CONCLUSION

According to the results obtained in this research it was established that school students studied showed results below the mean established for all variables and are classified as Low Normal. There is much evidence in the literature that delays in motor development cause damage that may extend into adulthood. Therefore, the risk factors for delay in the development should be eliminated whenever post sible, and faults existing in this process should be remedied. In this sense it is necessary as soon develop an intervention plan that can cover all the variables in question, so the help of physical education teacher is essential, because in her class can provide meaningful experiences to all fields of human movement .

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STUDY OF MOTOR DEVELOPMENT: AGE RELATIONSHIP BETWEEN MOTOR AND GENERAL SCHOOL CHRONOLOGICAL AGE.

ABSTRACT

Motor development according to Gallahue; Ozmun (2005) is the change in motor behavior continues throughout the life cycle, provided by the interaction between the needs of the task, the individual's biology and environmental conditions. In middle childhood, school age, is the stage where the child emerges a breakthrough in their motor development and learning. In this context I came up to school and physical education classes, since this should bother to justify the practice of any motor activity. Thus aim of this study was to know the level of motor development by comparing the motor age with chronological and Motor Quotient general students of a public school, the peripheral region, the city of Montes Claros-MG. This study consists of an exploratory research, a descriptive, cross-sectional and quantitative data analysis. The study population was composed of students aged 8 and 9 years. The sample consisted of 20 students, of both sexes. The instrument used for data collection was the Motor Development Scale (EDM), validated by Rosa Neto (2002). Students at the school had delayed in all variables of motor development, with a delay of your General Motor Age (92.50) compared with chronological age (109.50). According to these results there is a delay of approximately 1 year and 5 months which equates to 17 months in its development engine. The average General Motor Quotient (GMQ) was classified as Low Normal. In this sense it is necessary to develop an intervention plan that can cover all the variables under consideration, the physical education teacher is essential, because in her class can provide meaningful experiences to all fields of human movement.

KEYWORDS: Motor development. Chronological age. School.

ÉTUDE DU DÉVELOPPEMENT MOTEUR: RELATION ENTRE AGE ET MOTEUR AGE CHRONOLOGIQUE GENERAL SCHOOL.

RÉSUMÉ

Le développement moteur selon Gallahue; Ozmun (2005) est le changement dans le comportement moteur continue tout au long du cycle de vie, fourni par l'interaction entre les besoins de la tâche, de la biologie de l'individu et de l'environnement conditions. En milieu de l'enfance, la scolarité, le stade où l'enfant sort une percée dans leur développement moteur et d'apprentissage. Dans ce contexte, je suis venu pour les cours d'éducation physique des écoles et, puisque cela devrait déranger pour justifier la pratique de toute activité motrice. Ainsi but de cette étude était de connaître le niveau de développement moteur en comparant l'âge du moteur avec les étudiants Quotient chronologiques et Motor générales de l'école publique, la zone périphérique, la ville de Montes Claros-MG. Cette étude consiste en une recherche exploratoire, descriptive, analyse transversale et quantitative des données. La population étudiée était composée d'élèves âgés de 8 et 9 ans. L'échantillon se composait de 20 étudiants des deux sexes. L'instrument utilisé pour la collecte des données était l'échelle de développement moteur (EDM), validé par Rosa Neto (2002). Les élèves de l'école avaient tardé à toutes les variables du développement moteur, avec un retard de votre âge General Motor (92,50) par rapport à l'âge chronologique (109.50). Selon ces résultats, il ya un délai d'environ 1 an et 5 mois, ce qui équivaut à 17 mois de son moteur de développement. Le quotient Motor moyenne générale (GMQ) a été classée comme normale basse. En ce sens, il est nécessaire de développer un plan d'intervention qui peut couvrir toutes les variables à l'étude, le professeur d'éducation physique est essentielle, car dans sa classe peut offrir des expériences significatives dans tous les domaines du mouvement humain.

MOTS CLÉS: Développement moteur. Âge chronologique. École.

ESTUDIO DEL DESARROLLO MOTOR: RELACIÓN ENTRE LA EDAD DEL MOTOR Y GENERAL ESCUELA EDAD CRONOLOGICA.

RESUMEN

El desarrollo motor de acuerdo con Gallahue; Ozmun (2005) es el cambio en el comportamiento motor continúa durante todo el ciclo de vida, proporcionada por la interacción entre las necesidades de la tarea, la biología del individuo y las condiciones ambientales. En mitad de la infancia, la edad escolar, es la etapa donde el niño emerge un gran avance en su desarrollo motor y del aprendizaje. En este contexto, se acercó a las clases de educación física de la escuela y, ya que este debe molestarse en justificar la práctica de cualquier actividad motora. Así objetivo de este estudio es conocer el nivel de desarrollo motor mediante la comparación de la edad del motor con los estudiantes cociente cronológicos y Motor generales de una escuela pública, la región periférica de la ciudad de Montes Claros-MG. Este estudio consiste en una investigación exploratoria, un análisis descriptivo, los datos de corte transversal y cuantitativo. La población de estudio estuvo integrado por estudiantes de entre 8 y 9 años. La muestra estuvo conformada por 20 estudiantes, de ambos sexos. El instrumento utilizado para la recolección de datos fue la Escala de Desarrollo Motor (EDM), validado por Rosa Neto (2002). Los estudiantes de la escuela se había retrasado en todas las variables del desarrollo motor, con un retraso de su edad Motor General (92,50) en comparación con la edad cronológica (109.50). De acuerdo con estos resultados, existe un retraso de aproximadamente 1 año y 5 meses lo que equivale a 17 meses de su motor de desarrollo. El cociente promedio Motor General (CMG) se clasificó como normal bajo. En este sentido, es necesario desarrollar un plan de intervención que puede cubrir todas las variables en estudio, el profesor de educación física es esencial, ya que en su clase puede proporcionar experiencias significativas a todos los campos del movimiento humano.

PALABRAS CLAVE: Desarrollo motor. La edad cronológica. La escuela.

ESTUDO DE DESENVOLVIMENTO MOTOR: RELAÇÃO ENTRE IDADE MOTORA GERAL E IDADE CRONÓLOGICA EM ESCOLARES.

RESUMO

O desenvolvimento motor de acordo com Gallahue; Ozmun (2005) é a continua alteração no comportamento motor ao longo do ciclo da vida, proporcionada pela interação entre as necessidades da tarefa, a biologia do individuo e as condições do ambiente. Na segunda infância, a idade escolar, é a fase onde a criança emerge um grande avanço no seu desenvolvimento motor e na aprendizagem. Nesse contexto surgi à escola e as aulas de Educação Física, uma vez que esta se deve preocupar em justificar a prática de qualquer atividade motora. Assim foi objetivo deste estudo conhecer o nível de desenvolvimento motor através da comparação da idade motora com a cronológica e o Quociente Motor geral em alunos de uma escola publica, de região periférica, da cidade de Montes Claros-MG. Este estudo consiste em uma pesquisa exploratória, de cunho descritivo, com corte transversal e de análise quantitativa de dados. A população deste estudo foi composta por alunos com faixa etária de 8 e 9 anos. A amostra foi composta por 20 alunos, de ambos os sexos. O instrumento utilizado na coleta de dados foi a Escala de Desenvolvimento Motor (EDM), validada por Rosa Neto (2002). Os alunos da escola obtiveram atraso em todas as variáveis analisadas do desenvolvimento motor, apresentando um atraso da sua Idade Motora Geral (92,50) em comparação com a Idade Cronológica (109,50). De acordo com esses resultados verifica-se um atraso de aproximadamente, 1 ano e 5 meses o que equivale a 17 meses no seu desenvolvimento Motor. A média do Quociente Motor Geral (QMG) foi classificado como Normal Baixo. Neste sentido faz-se necessário elaborar um plano de intervenção que possa abranger todas as variáveis em questão; o professor de Educação Física é indispensável, pois em sua aula pode propiciar experiências significativas a todos os campos da motricidade humana.

PALAVRAS- CHAVE: Desenvolvimento motor. Idade cronológica. Escolares.