88 - LEVEL OF COORDINATION AND MOTOR SKILLS FOR CHILDREN

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INTRODUCTION

Motor development is the process of change in motor behavior, which is related with age, both in attitude and in the movement of the child (GOLDBERG 2002; PINTO et al, 2008), and it is dependent on the biology, behavior and environment and not just the maturation of the nervous system (Shepherd, 1998; CASTRO, 2005). When the child is born, your central nervous system is not yet fully developed, so it needs to perceive the world through the senses, and therefore act on it, creating an interaction that changes the course of their development. Thus, through its relationship with the environment, the central nervous system is still evolving in a learning process that allows a better adaptation to the environment they live in (RTLIFFE, 2000).

Each child has its own characteristic pattern of motor development, since its inherent characteristics suffer the constant influence of a chain of transactions that take place between the child and his environment. But even so, there are particular characteristics that allow a rough assessment of the level and quality of performance (Burns, 1999). According to Manoel (1994), motor development is divided into 5 phases, which are partially corroborated by other authors, they are: stage of fetal movements (Prechtl, 1986), stage of reactive and spontaneous movements (Manoel, 1999), phase basic motor actions (Manoel, 2000, and Ozmun Gallahue, 1995; Haubenstricker and Seefeldt, 1982; Tani et al, 1988, Oyama, 1985) Phase combination of basic motor actions and phase of motor actions specialized (Manoel, 1999; Gallahue and Ozmun, 1995).

A good motor development may influence the child's future life in the social, intellectual and cultural, as to have some difficulty driving the child takes refuge in the middle which does not dominate consequently failing to perform or performing certain activities infrequently (VIGIANO, 1998). Moreover, the lack of movement can lead not only to a narrow body and motor development, as aspects of personality may influence how perception, cognition, speech, emotions, and social behavior (ZAHNER & DOSSEGGER, 2004).

According Gallahue (2005) an important phase in the development of motor skills is the stage of application that occurs between 6 and 14 years (Elementary School), is at this stage that children in their transition to adolescence become aware of their possible limitations and personal skills and direct their focus proficiency of motor skills and coordination.

Knowing the level at which the child is to such motor skills and coordination can be an important ally in physical education classes, given that these data with the physical education teachers can direct their lessons according to the results obtained, and also show those in charge of coordinating school children and how much physical education classes are required for motor development.

One way to know what level the child is is the use of tests such as KÖRPERKOORDINATIONSTEST FUR KINDER (KTK) that assists in the evaluation of motor development in the child's specific to the variable motor coordination, and test TEST OF THE GROSS MOTOR DEVELOPMENT-2 (TGMD-2), in which both can directly influence the motor development of the child.

Investigations focused on analyzing the levels of coordination and motor skills of children, as well as the possible interaction between the two variables, are necessary in order to better orchestrate the physical education professional with performance assessment strategies.

OBJECTIVE

To assess the level of gross motor coordination and motor skills for children 8 years old belonging to a private school in the city of Santos.

METHODOLOGY

The study included 15 children with an average age of 8 years (7.6). Students from a private school in the city of Santos, these students regularly participated in physical education classes lasting 50 minutes. Before the start of the experiment was a meeting with the heads of the children and the school principal, to explain the procedures and purpose of the experiment, after being informed, officials signed a consent form. The tests that will be described below were performed at the school.

We chose to use this study tests Test of Gross Motor Development - Second Edition (TGMD-2), proposed by Ulrich (2000), and test-Körperkoordinations für Kinder (KTK), proposed by Kiphard and Schilling (1974) to assess the level of gross motor skills and gross motor skills of children.

The TGMD-2 is composed of six locomotor tasks (running, jumping on one leg, jump horizontally, jumping an obstacle, slide and gallop) and six object control tasks (hitting, catching, bouncing, throwing, rolling and kicking). For this test was done a marquee at the school with different distances to perform the skills of locomotion and manipulation, and 18.29 meters for the ability to run, 10.57 feet to the bouncing, kicking, throwing, receiving and bat and 7.62 meters for the gallop, slide, jump, jump and jump horizontally obstacle. With demarcations established, the evaluator positioned a child under section 0 of demarcation to begin the test. Before the child's ability to perform any test, the examiner first demonstrated running correctly, and soon after that the child had two trials, this procedure was repeated for all 12 motor skills.

The performance of each child in the tasks was filmed and recorded in a notebook of the brand ACCER so they could be analyzed later. Each task had numbers of performance criteria related to the qualitative analysis of the movement, the child received one (1) point if met the criterion and no points (0) are not met. From this we got up the sum of points achieved in each sub-test, named as raw scores on the test, after obtaining the raw scores was used grading scale proposed by Ulrich (2000) to classify the level of motor skills thick children. The analysis of the performance criteria was made by an assessor trained and experienced in the evaluation of the test and more than 8,000 completed analyzes.

KTK is already testing the performance of four motor tasks: balance running backwards, jumping mono pedals, lateral jumps over platforms and transfer. Each of these tasks requires a material and different runtimes. To perform the task of balancing on the rear gear were used three beams 3 feet in length, and width of 6 cm, 4.5 cm and 3 cm, this task the child had to reverse pass from one end to another the crossbar and the child had to perform this task 3 times in each beam, the beam starting and ending at

6 cm beam 3 cm, while the child ran into reverse an appraiser counted the number of steps taken, and 8 steps was the highest score of the test.

For heels mono pedals were used 12 blocks of foam each measuring 50 x 20 x 5cm, this task the child had to jump using only one leg on a trial and soon after the other leg, when the child jumped foam successfully A score was supplied to it.

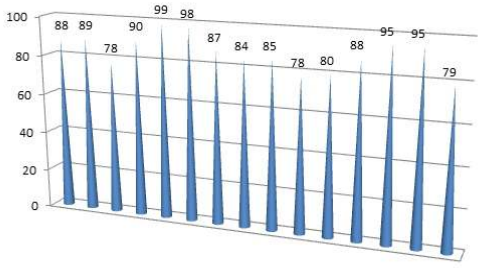
On the heels side was a wooden platform used (offset) 60 x 50 x 0, 8cm, with a slat divider 60 x 4 x 2cm and a timer, in this test the child should jump from one side to the other in the material without touching the timber located in the center and not jump off the material, the execution time of the test was 15 seconds and was performed 2 times and the number of steps was added.

The last test was the transfer on platforms where we used two platforms 25 x 25 x 5cm and a timer, the child in this test was intended to put a shelf on the right side of your body and move up this platform, this movement was performed continuously during the time of 20 seconds and the lateral jumps this test was conducted two times and the number of runs were added.

These tests involve all aspects characteristic of a state of motor coordination, which has components as balance, rhythm, laterality, speed and agility. The performance analysis of the child occurs through quantitative measurements of movement and level of coordination is evidenced by general classification table elaborated by Kiphard (1976).

RESULTS

Graph 1 shows the result of individual participants in the sum of scores on 4 tests of KTK.



Graph 2 shows the result of individual participants in the sum of scores in the 12 tests TGMD-2.

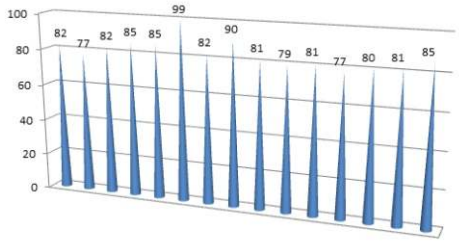


Table 1 - Results for raw score and rank the level of general motor coordination (KTK) and motor skills (TGMD2)

	Score KTK	Score TGMD2
Average	87,53	83,06
Classification	Normal	Below average

DISCUSSION

With bases in the data presented above, it is possible to see differences between the means and classifications in relation to motor tests. One hypothesis for this result may be that both assess different variables. The test proposed by KTK Kiphard (1974) was designed to assess the gross motor coordination, using four simple tasks with low runtime and easy to understand, moreover, for the preparation of scores are used KTK momentum, ie, the more actions concerning the child perform the test, the higher your score, since the test TGMD-2 proposed by Ulrich (2000), was designed to gauge the level of motor ability, using 12 tasks with greater complexity and a high time for its full implementation, the development of the score TGMD-2 utilizes the quality movement, that is, no matter how many times the child performs a specific action, but rather, the quality of this action. Can see that such results related to KTK corroborate the findings of Rapp and Schoder (1972), which conducted research with mentally handicapped 5 years to 14 years and found increased development of motor coordination, and Silva (1989) who developed a study aiming to detect the age of the further development of motor coordination wide (thick) of both genders, ages 7 to 10 years, and found that in females the level of coordination was superior to 8 years of age, however for males was classified as normal, and the results presented in this study. For tests TGMD-2, Vieira (2009) corroborates the results found in this article, which investigated the association between motor performance, perceived competence and body mass index of children aged 8 to 10 years, and found that 97 22% of the children had moderate perceived competence and high performance motor and 97.22% very poor, as Braga et al, (2009), which showed that children in the study showed an average performance of locomotor skills below expected.

CONCLUSION

With the data obtained in this experiment we conclude that the children evaluated were rated normal motor coordination Overall, however, the quality of gross motor skills the result of classification was below average. These results indicate a need for the group assessed undergoing strategies that enhance the fundamental skills, considering these are compelling for purchases of more complex skills.

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LEVEL OF COORDINATION AND MOTOR SKILLS FOR CHILDREN

ABSTRACT

Motor development is the process of change in motor behavior and is related to age, being dependent on the biology, behavior and environment. A good motor development may influence the child's future life in the social, intellectual and cultural, as to have some difficulty driving the child takes refuge in the middle which does not dominate consequently failing to perform or performing certain activities infrequently. Therefore, knowing the level at which the child is to such motor skills and coordination can be an important ally in physical education classes, considering that these data with the physical education teachers can direct their lessons according to the results. One way to know what level the child is is the use of tests such as KTK that aids in evaluating the child's motor development in particular for variable motor coordination, and test TGMD-2, in which both can directly influence motor development of the child. Investigations focused on analyzing the levels of coordination and motor skills of children, as well as the possible interaction between the two variables, are necessary in order to better orchestrate the physical education professional with performance assessment strategies. The aim of this study was to analyze the level of coordination

and motor skills of children. The study included 15 children with an average age of 8 years (7.6), students of a private school in the city of Santos, who performed two types of tests to assess the level of gross motor skills and gross motor skills through TGMD-2 and KTK respectively. The results indicate a need, the group evaluated, be subjected to strategies that enhance the fundamental skills, considering these are compelling for purchases of more complex skills.

KEYWORDS: Motor tests; Children; Motor Development

NIVEAU DE COORDINATION ET MOTRICES POUR LES ENFANTS

RÉSUMÉ

Le développement moteur est le processus de changement dans le comportement moteur et est liée à l'âge, dépendant de la biologie, le comportement et l'environnement. Un bon développement moteur peut influer sur la vie future de l'enfant dans l'. Social, intellectuel et culturel, d'avoir une certaine difficulté à conduire l'enfant se réfugie dans le milieu qui ne domine pas donc pas à accomplir ou à exercer certaines activités rarement Par conséquent, sachant le niveau auquel l'enfant est à la motricité et la coordination de ces peut être un allié important dans les classes d'éducation physique, étant donné que ces données avec les professeurs d'éducation physique peuvent diriger leurs leçons en fonction des résultats. Une façon de savoir quel est le niveau de l'enfant est l'utilisation de tests tels que KTK qui aide à évaluer le développement moteur de l'enfant, en particulier à la coordination motrice variable, et le test TGMD-2, dans lequel les deux peuvent influer directement sur le développement moteur de l'enfant. Les enquêtes ont porté sur l'analyse des niveaux de coordination et la motricité de l'enfant, ainsi que l'interaction possible entre les deux variables, sont nécessaires afin de mieux orchestrer l'éducation physique professionnelle avec les stratégies d'évaluation du rendement. Le but de cette étude était d'analyser le niveau de coordination et la motricité des enfants. L'étude a inclus 15 enfants avec un âge moyen de 8 ans (7,6), les élèves d'une école privée dans la ville de Santos, qui a effectué deux types de tests pour évaluer le niveau de la motricité globale et la motricité globale par le biais TGMD-2 et KTK respectivement. Les résultats indiquent un besoin, le groupe a évalué, être soumis à des stratégies qui améliorent les compétences fondamentales, compte tenu de ceux-ci sont convaincants pour l'achat de compétences plus complexes.

MOTS-CLÉS: Les tests du moteur; enfants; Motor Development

NIVEL DE COORDINACIÓN Y LAS HABILIDADES MOTORAS PARA NIÑOS

RESUMEN

El desarrollo motor es el proceso de cambio en el comportamiento del motor y se relaciona con la edad, siendo dependiente de la biología, el comportamiento y el medio ambiente. Un buen motor de desarrollo pueden influir en la vida futura del niño en el. Social, intelectual y cultural, como para tener alguna dificultad para conducir el niño se refugia en el medio que no domina tanto el incumplimiento o la realización de ciertas actividades con poca frecuencia Por lo tanto, conocer el nivel en el que el niño está en habilidades motoras tales y coordinación puede ser un aliado importante en las clases de educación física, teniendo en cuenta que estos datos con los profesores de educación física pueden dirigir sus clases de acuerdo a los resultados. Una manera de saber qué nivel el niño es es el uso de pruebas tales como KTK que ayuda en la evaluación del desarrollo del niño motor en particular para la coordinación motora variable, y prueba TGMD-2, en el que tanto puede influir directamente desarrollo motor del niño. Las investigaciones se centraron en el análisis de los niveles de coordinación y las habilidades motoras de los niños, así como la posible interacción entre las dos variables, son necesarias con el fin de orquestar la mejor educación física profesional con las estrategias de evaluación de desempeño. El objetivo de este estudio fue analizar el nivel de coordinación y las habilidades motoras de los niños. En el estudio participaron 15 niños con una edad promedio de 8 años (7,6), los estudiantes de un colegio privado de la ciudad de Santos, que realizaron dos tipos de pruebas para evaluar el nivel de habilidades de motricidad gruesa y la coordinación motora a través de TGMD-2 y KTK respectivamente. Los resultados indican una necesidad, el grupo evaluado, sometido a estrategias que mejoren las habilidades fundamentales, teniendo en cuenta que son de peso para la adquisición de habilidades más complejas.

PALABRAS CLAVE: Pruebas de motor; Niños; Desarrollo Motor

NÍVEL DE COORDENAÇÃO E HABILIDADES MOTORAS DE CRIANÇAS

RESUMO

Desenvolvimento motor é o processo de mudança no comportamento motor, e está relacionado com a idade, sendo dependente da biologia, do comportamento e do ambiente. Um bom desenvolvimento motor pode repercutir na vida futura da criança nos aspectos sociais, intelectuais e culturais, pois ao ter alguma dificuldade motora a criança se refugia do meio o qual não domina consequentemente deixando de realizar ou realizando com pouca frequência determinadas atividades. Portanto, saber o nível em que a criança se encontra para tais habilidades motoras e coordenação pode ser um importante aliado nas aulas de educação física, haja vista que com esses dados o profissional de educação física pode direcionar suas aulas de acordo com os resultados obtidos. Uma das formas para saber qual nível a criança se encontra é o uso de testes, como o KTK que auxilia na avaliação do desenvolvimento motor da criança em específico para a variável coordenação motora, além do teste TGMD-2, no qual ambos podem influenciar diretamente no desenvolvimento motor da criança. Investigações focadas em analisar os níveis de coordenação e habilidades motoras de crianças, bem como, a possível interação entre as duas variáveis, se fazem necessárias a fim de instrumentar melhor o profissional de Educação Física com estratégias avaliativas de desempenho. O objetivo deste estudo foi analisar o nível de coordenação e habilidades motoras de crianças. Participaram deste estudo 15 crianças com a idade média de 8 anos (7,6), estudantes de uma escola particular na cidade de Santos-SP, que realizaram dois tipos de testes para avaliar o nível de habilidade motora grossa e a coordenação motora grossa, através do TGMD-2 e KTK respectivamente. Os resultados indicam uma necessidade, do grupo avaliado, ser submetido a estratégias que potencializem as habilidades fundamentais, haja vista, essas serem imperiosas para aquisições de habilidades mais complexas.

PALAVRAS-CHAVE: Testes motores; Crianças; Desenvolvimento Motor