109 - COMPARATIVE BETWEEN THE ENGINE DEVELOPMENT PROFILE OF REPRESENTATIVE REPEAT STUDENT AND NON-REPEAT SCHOOLS IN THE INITIAL YEARS OF FUNDAMENTAL TEACHING

JUDITE FILGUEIRAS RODRIGUES*
Universidade Regional Integrada do Alto Uruguai e das Missões (URI) - São Luiz Gonzaga – RS - Brasil.
Judite_rodrigues@outlook.com
CARLA VASCONCELOS DE MENEZES**
Universidade do Sul de Santa Catarina (UNISUL) – Tubarão/SC – Brasil.
Carla.demenezes@outlook.com
EDER MENUZZI**
Universidade Regional Integrada do Alto Uruguai e das Missões (URI) - São Luiz Gonzaga – RS – Brasil.
edmenuzzi@yahoo.com.br
LUCAS KEMMERICH DORNELLES**
Universidade Regional Integrada do Alto Uruguai e das Missões (URI) - São Luiz Gonzaga – RS – Brasil.
lucaskdornelles86@gmail.com

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ABSTRACT

The purpose of this researchto compare the motor profile of schoolchildren from the initial years of Elementary School who have undergone repetition with non-repeating children. It sought to understand the need to overcome some paradigms that are invigorating in the daily school life, which can influence the teaching and learning process. The population was composed of children enrolled in the public network, and the sample was organized into two groups: experimental and control. The Experimental Group - 40 children from 7 to 11 years of chronological, who had at least one repetition in some series. The Control group of the same number of schoolchildren, with the same chronological ages and gender, without repetition. These groups were applied the Motor Development Scale protocol - Rosa Neto (2002). Thus, the indicators were constructed to analyze the previously defined parameters: Steps to estimate the motor profile of schoolchildren. The results showed that there is a difference betweenthe chronological and motor ages, (IMG <IC). The Control group was composed of the same number of schoolchildren, with the same chronological ages and gender, without repetition. Were applied the Motor Development Scale protocol - Rosa Neto (2002). Thus, the indicators were constructed to analyze the previously defined parameters: steps to estimate the motor profile of the students. The results showed that there is a difference between the chronological and motor ages, (IMG <IC). Portant, the development of the general motor, in the students investigated, presented in a non-linear way, that is, a variability occurred according to age, gender and independent group of reprobation in some series.

Keywords: Learning. Motricity. Human development.

1. INTRODUCTION

This article aims to determine the motor profile in schoolchildren from the initial years of Elementary School in the municipality of São Luiz Gonzaga – RS Who have undergone repetition at least one academic year compared to a sample of schoolchildren with the same age group and gender that did not suffer repetition. Historically, schools are also composed of children who have difficulties in learning, which gradually receive the label of repeaters, evaded and failed, being often excluded by the school that accepted them in the act of the registration. The learning is an active process in which the learner constructs new ideas or concepts, based on their prior knowledge and those being studied, Based on its innate mental structure (BRUNER, 1966; PAIN, 2006).

We corroborate with Macedo and Silva (2003) on understanding the phenomenon of learning, Integrating several areas of knowledge, requires constant reflection, both for those who learn and those who teach. Similarly, Vygotsky (1987) highlights the role of the historical and cultural context in the processes of learning and development. For this author, living in society is essential for the transformation of the biological being into a human being. This development takes place through the elaboration of the information received from the environment.

From a neurological perspective, we refer to Levin (2003) to say that sensory-motor development is of vital importance in assessing how the maturation of motor function evolves. The motor function consists of systems that interact with each other: The pyramidal that effects the voluntary movements; the extrapyramidal charged with automatic motor and to determine the basic motor adaptation to different situations and the cerebellar system, Regulator of balance and harmony relevant to both voluntary and involuntary movements.

Regarding motor development, Rosa Neto (2014) says that the successive integration of motricity implies in the constant and permanent organic maturation, and that the movement and its end represents a unit that go increasingly improving, as a result of a progressive differentiation of the integrative structures of the human being.

From our conception of motor development and learning, it seems essential to say that culture itself requires of children, the domain of various basic skills, as a foundation for the acquisition of specialized motor skills in the cognitive, affective and motor domains (RODRIGUES, 2015). In this sense, motor development focuses on the study of qualitative and quantitative changes das ações motoras do ser humano ao longo de sua vida que contribuem na sua aprendizagem.

1. METHODOLOGY

This study, according to Sampieri, Colado and Lucio (2010), is characterized as a descriptive investigation, causal and quantitative correlation. The research was authorized by the secretariats of the Municipal and State networks; the schools authorized the application of EDM-scale Motor Development the responsible received the Consent Terms Free and Clarified authorizing the participation of the child in this study and The verbal authorization of each child was considered.

Obtaining the Sample

The sample was random simple without replacement, whose inclusion criteria were: to have ages 7 and 11 years old, do not present any pathology, are enrolled and attending regularly one of the schools in the public network of the Municipality of São Luiz Gonzaga RS.

The students were divided into two groups, one being the experimental group (E) and the other control (C). Of experimental group participated in 40 children, aged 07-11 years old which had at least one repetition in some series. The Control group was also composed of the same number of students, With the same age and gender, who presented any repetition.

To evaluate the motor development of schoolchildren, the EDM Kit and the Motor Development Scale ROSA NETO (2002) were used. This kit together with the scale evaluates the fine motricity, global motricity, balance, body schema, spatial organization and temporal, and laterality, and for each age group exist a pre-determined test. The tests applied started from the age of five (motor age) although the EDM starts from the two years, considering the age group of the students of the initial years of Elementary School. The ages are expressed in months.

Data analysis

The results were analyzed by Statistical Package for Social Sciences software (SPSS, Chicago, IL, USA). Data are expressed as mean ± DP of each value reflects 40 students. The differences between the experimental groups were determined by Student's t-test.

3. Presentation and Discussion of Results

The Motor Development Scale proposed by Rosa Neto (2002) comprises a set of diversified tests and graded difficulty, leading to a thorough exploration of different sectors of development, Allowing to assess the level of motor development of the child according com IC, considering successes and failures. O quadro 01 mostra os testes motores nos componentes da EDM.

Table 01 - Motor Testing

Tests	Experimental Group	Experimental Group Control Group	IMG Difference
Fine Motricity	86	89	3 months E <C
Global Motricity	90	104	14 months E <C
Balance	100	109	9 months E <C
Scheme Body / Quickness	86	88	2 months E <C
Space Organization	85	90	5 months E <C
Language / Org. Temporal	89	90	1 month E <C

Source: Data collected by the researcher

In this scale, motor test is understood as a specific test that allows to measure a certain motor characteristic of an individual and compare their results with the of other individuals. Motor test is defined as an instrument that designates a set of activities marked for a determined IC. Thus, the results of a motor test can determine the progress or motor delay of a child in that assessed aspect. The application of this tests in the students subject of this investigation shows the following results:

1) Fine Motricity - IM1

Fine motricity refers to the ability to control a set of movement activities of certain segments of the body, With a minimum of force, in order to achieve a precise answer to the determined task. IMG group E< IMG group C at 03 months.

2) Global Motricity-IM2

Global mobility involves the ability to control the contractions of large corporal muscles in the generation of wide movements. IMG group E< IMG group C at 14 months.

3) Balance - IM3

Balance is the capacity of the body to assume and sustain any position against the force of gravity, in that all the forces that acting on this body are nullified. IMG group E< IMG group C at 09 months.

4) Body Scheme / Speed - IM4

The body scheme refers to the ability to accurately discriminate body parts, actively support all the gestures that the body performs on itself and on the external objects and organize the parts of the body in the execution of a task. IMG group E< IMG group C at 02 months.

5) Space Organization - IM5

Spatial organization is the knowledge of bodily dimensions, both the body space as the surrounding space, And the ability to accurately assess the relationship between body and the environment. IMG group E< IMG group C at 05 months.

6) Language / Org. Temporal - IM6

Temporal organization refers to the consciousness of the time that is structured on the perceived changes and characterized by the order, chronological distribution, and by the duration of events IMG group E< IMG group C at 01 month.

When analyzed the result of this battery of tests in the Control group we observed a smaller difference, but, statistically significant in relation to chronological age if used as a parameter to EDM. This difference shows that the students of the initial years of the municipality of São Luiz Gonzaga, Brazil present a lag in their motor development in relation to their chronological age. Such a discrepancy may have also affected the cognitive development of these students.

Table 02 Chronological Age and Motor Age

	Mean IC	Average IMG	Difference between IC and IMG
Group C	102 months	93 months	IMG<IC 9 months
Group E	111 months	81 months	IMGIIC 30 months
Difference Between C and E	E> C 9 months	E <C 12 months	-------

Source: Data collected by the researcher

The data presented in table 02, show the Motor Development of each group and the comparison between them.

Besides of difference between the chronological age and the general motor age of the Experimental group in relation to the Control group, we also verified a difference of the IMG in relation to IC in each group. the motor development generates a process of change in motor behavior, and it is related with chronological age being its improvement the starting point of the development of the child. Each child presents its characteristic pattern of development, because its inherent characteristics suffer the constant influence of a chain of transactions that pass between the child and his environment (ROSA NETO, 2002). Hence the importance of the conscious work of the qualified professional in the integral development of the child.

Table - 03 - Motor Evaluation - Control and Experimental Groups

Scale	Frequency C	% Group C	Frequency E	% Group E
Much lower	2	5	6	15
Bottom	4	10	11	27.5
low normal	6	15	7	17.5
average normal	22	55	15	37.5
Normal high	3	7.5	0	0
Superior	3	7.5	1	2.50
far superior	0	0	0	0
Total	40	100	40	100

4 CONCLUSION

To trace the motor profile in schoolchildren of the initial years of Elementary School in the municipality of São Luiz Gonzaga – RS Who have undergone repetition at least one school year and compare with students of the same age group and gender who did not undergo repetition it was necessary to search for paths already cleared, but which they are now camouflaged. Going through a vast literature on learning we understand that it happens differently, at different times in each subject and depends on many factors both intrinsic and extrinsic. Among these factors we highlight the stimulation, the context and the genesis.

In counterpoit, there are learning problems, which can also if establish in the same way, making it difficult between articulate cognitive and motor skills, Bringing as a consequence delay in the motor development, indispensable instance for the learning to happen. Such "delay" implies in a distancing between what the children learn and what they could reasly learn.

With the results of the motor tests applied to the students, we can affirm that there is a statistically significant difference between the IMG of the group E If compared whith the group C: IMG<IC in 9 months. These differences become even greater if compared to the reference used. In the Experimental group the IMG<IC in 12 months. These results allow to affirm that the development of the general motor age, fine motricity, global motricity, balance, body schema, rapidity, spatial organization, language, temporal organization and laterality in the students investigated, present themselves in a non linear way, That is, a variability occurred according to age, gender and independent group of disapproval in some series. This indicates that these children may be going through a phase of instability in motor performance to reach higher levels of development.

The results allow to point out that the motor experiences in the exploration of their own body that should be accumulated, by the age of 6, occurred, in most children, in a precarious way, Inhibiting their motor development and consequently their capacity to reach higher levels in their learning. These results make it possible to conclude that children may not be taking advantage of the motor activities proposed by the school and in some cases discouraged by the family. For the child to have meaningful learning it is of fundamental importance that it be worked in a timely manner in its corporeality.

Therefore, preventive action for school failure must be present since the early years as a constant reality, constituting a prophylaxis as a healthy way to promote teaching and learning in school Centered on the motor development of the child. It becomes urgent a theory of learning that considers the movement as an expression of the human being.

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Keywords: Learning. Motricity. Human development.

COMPARAISON ENTRE LE PROFIL DE DÉVELOPPEMENT MOTEUR SCOLAIRE RÉPÉTEURS ET NON RÉPÉTEURS ANS EN INICAIS ELEMENTARY SCHOOL

RÉSUMÉ

Tout au long de son développement, l'enfant peut avoir des retards à moteur qui peuvent influer sur leur processus d'apprentissage, en augmentant les taux d'échec scolaire. En ce sens, il y a la nécessité d'une évaluation spécifique du moteur pour détecter de tels retards dans une tentative pour atténuer les pertes associés potentiels. Cette étude a été caractérisée comme une recherche à l'approche quantitative, causalité et corrélation visait à comparer le profil du moteur scolaire des premières années des enfants des écoles primaires qui ont subi la répétition sans répéteurs. La population était des enfants inscrits dans les écoles municipales et publiques, avec l'échantillon organisé en deux groupes: l'un expérimental et un contrôle. Le groupe expérimental a participé à 40 enfants 07-11 ans d'âge chronologique, avec la répétition dans certaines séries. Le groupe témoin était composé du même nombre d'élèves ayant le même âge chronologique et le sexe sans répétition. Dans ces groupes, il a appliqué le protocole moteur Echelle de développement - Rosa Neto (2002). Donc, ils ont construit les indicateurs pour analyser les paramètres définis précédemment: des mesures pour estimer le moteur du profil de l'école. Les résultats ont montré qu'il y a une différence entre l'âge chronologique et le moteur (IMG <IC). Ces résultats nous permettent d'affirmer que le développement de l'âge général du moteur, de la motricité fine, les compétences motrices générales, l'équilibre, la structure du corps, la vitesse, l'organisation spatiale, la langue, l'organisation temporelle et la latéralité chez les élèves étudiés, ont été jugées de manière non linéaire, qui est, il la variabilité en fonction de l'âge, le sexe et quel que soit le groupe d'échec dans certaines séries.

Mots-clés: Apprentissage. Motricity. Le développement humain.

COMPARATIVO ENTRE O PERFIL DE DESENVOLVIMENTO MOTOR DE ESCOLARES REPETENTES E NÃO REPETENTES NOS ANOS INICIAIS DO ENSINO FUNDAMENTAL

RESUMEN

A los largo de su desarrollo, el niño puede tener retrasos motores que pueden influir en su proceso de aprendizaje, el aumento de las tasas de fracaso escolar. En este sentido, existe la necesidad de una evaluación específica del motor para detectar tales retrasos en un intento de investigar los posibles pérdidas asociadas. Este estudio se caracteriza como una investigación con enfoque cuantitativo, correlacional causal y tuvo como objetivo comparar el perfil motor de la escuela de los primeros años de los niños de primaria que han sufrido la repetición y no repetición. La población era de niños inscritos en las escuelas municipales y privadas, con la muestra organizada en dos grupos: uno experimental y otro de control. El grupo experimental participó en 40 niños 07-11 años de edad cronológica, con la repetición en algunas series. El grupo de control estaba compuesto por el mismo número de estudiantes con la misma edad cronológica y el sexo sin repetición. En estos grupos se aplicó el protocolo de escala de desarrollo motor - Rosa Neto (2002). Así, construyeron los indicadores para analizar los parámetros previamente definidos: pasos para estimar el motor del perfil de la escuela. Los resultados mostraron que hay una diferencia entre la edad cronológica y el motor (IMG <IC). Estos resultados permiten afirmar que el desarrollo de edad general del motor, habilidades motoras finas, habilidades generales de motor, el equilibrio, la estructura de la imagen corporal, la velocidad, la organización espacial, el lenguaje, la organización temporal y la lateralidad de los estudiantes investigados, se encontró que de manera no lineal, es decir, hay la variabilidad según la edad, el género y con independencia del grupo de repetición en algunas series.

Palabras clave: Aprendizaje. Motricidad. Desarrollo humano.

COMPARATIVO ENTRE O PERFIL DE DESENVOLVIMENTO MOTOR DE ESCOLARES REPETENTES E NÃO REPETENTES NOS ANOS INICIAIS DO ENSINO FUNDAMENTAL

RESUMO

Ao longo do seu desenvolvimento, a criança pode apresentar atrasos motores que podem influenciar no seu processo de aprendizagem, aumentando os índices de reprovação escolar. Nesse sentido, destaca-se a necessidade de uma avaliação motora específica para detectar tais atrasos numa tentativa de amenizar possíveis prejuízos associados. Este estudo caracterizou-se como uma investigação com enfoque quantitativo, correlacional causal e objetivou comparar o perfil motor de escolares dos anos iniciais do Ensino Fundamental que sofreram repetência com crianças não repetentes. A população foi crianças matriculadas na rede pública municipal e estadual, com amostra organizada em dois grupos: um experimental e outro controle. Do Grupo Experimental participaram de 40 crianças de 07 a 11 anos de idade cronológica, com repetência em alguma série. O grupo Controle foi composto pelo mesmo número de escolares, com mesmas idades cronológicas e gênero, sem repetência. Nestes grupos aplicou-se o protocolo Escala de Desenvolvimento Motor - Rosa Neto (2002). Assim, construíram-se os indicadores para analisar os parâmetros previamente definidos: etapas para estimar o perfil motor dos escolares. Os resultados apontaram que existe uma diferença entre as idades cronológica e motora, (IMG<IC). Estes resultados permitem afirmar que o desenvolvimento da idade motora geral, motricidade fina, motricidade global, equilíbrio, esquema corporal, rapidez, organização espacial, linguagem, organização temporal e lateralidade nos escolares investigados, apresentaram-se de maneira não linear, isto é, ocorreu uma variabilidade de acordo com a idade, gênero e grupo independente de reprovação em alguma série.

Descritores: Aprendizagem. Motricidade. Desenvolvimento Humano.