

86 - MOTOR SKILL PROFILE OF STUDENTS FROM THE SECRETARIA MUNICIPAL DE BELÉM: CHILDHOOD EDUCATION UNIT CENTER

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INTRODUCTION

The preschool is considered and marked by decisive events in human development, since it is this period that the child is structurally suitable for the pursuit of more complex psychological and physical activities, such as walking, pick up objects and carry the ability to use language as a form of interpersonal communication. (ROSA, 1986).

For Ozmun and Gallahue (2005), the expressed movements are characterized as observable divided into three categories: stabilizers movements, locomotor movements and manipulative movements. The fundamental movements will be the guide for the combinations of athletic skills.

Test of Gross Motor Development (TGMD) – The TGMD is an instrument designed to evaluate the fundamental motor skills of children, developed by Ulrich in 1985. This original version was modified by Ulrich in 2000, leading the Test of Gross Motor Development Second Edition (TGMD-2).

According to Ulrich (2000), the main tasks of the test are: 1) identify children who are significantly lagging behind their peers in the development of fundamental motor skills, 2) design a curriculum with an emphasis on motor development, 3) evaluate the individual progress in the development of fundamental motor skills, 4) evaluate the success of a motor program, 5) to be useful as the measuring instrument in research involving the fundamental motor skills.

In the Childhood Education Unit Center Cremação, located in the city of Belém – Pará, one of the largest urban centers in the Amazon, children do physical activities assisted by qualified professionals. In the clinic, which is a social institution, the goal is to provide support to families, often partially formed, poorly seated, unstable, in most cases as a result of migration between regions. (ARANHA, 2002).

OBJECTIVE

To evaluate the motor profile of children enrolled in childhood education program at the Secretaria Municipal de Belém emphasizing on levels of locomotor skill and object control.

MATERIALS AND METHODS

In this cross-sectional, descriptive and comparative study were evaluated 62 students, 12 girls (n = 23) and 15 boys (n = 39), aged between 4 and 5 years.

As a statistical approach it was applied the Student's t test and Mann-Whitney (AYRES, 2007, p.156). It was previously set the level of significance = 0.05 for rejection of the null hypothesis.

RESULTS AND DISCUSSION

Over 62 children aged 4 years old observed in the study, 37.8% are female and 62.2% are male. In the amount of 17 children aged 5 years, 35.3% are female and 64.7% are male.

In implementing the protocol TGMD-2 in the subtest of locomotion for 4 years old children, the comparison between boys and girls by the Student's t test (AYRES, 2007, p.126) obtained p-value = 0.0287 which attests the relevant difference between boys and girls performance.

Table 1: Distribution of scores in the locomotor subtest for 4 years old children, and girls (n = 17) and boys (n = 28).

Raw Score	Girls		Boys		Total	
	n	Percentage	n	Percentage	n	Percentage
1 to 8	2	11.8%	0	0.0%	2	4.7%
9 to 16	1	5.9%	1	3.8%	2	4.7%
17 to 24	5	29.4%	8	30.8%	13	30.2%
25 to 32	7	41.2%	13	50.0%	20	46.5%
33 to 40	2	11.8%	6	23.1%	8	18.6%
41 to 48	0	0.0%	0	0.0%	0	0.0%

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p-value = 0.0287* (Student' t Test)

In the locomotor subtest for 5 years old children performance of boys and girls was assessed by Student's t test (AYRES, 2007, p.126) was obtained p-value = 0.8815 which is not significant, indicating that 5 years old children of both sexes achieved similar performance in the locomotor ability test.

Table 2: Distribution of scores in the locomotor subtest for 5 years old children, and girls (n = 6) and boys (n = 11).

Raw Score	Girls		Boys		Total	
	n	Percentage	n	Percentage	n	Percentage
16 to 20	1	16.7%	0	0.0%	1	5.9%
21 to 25	0	0.0%	3	27.3%	3	17.6%
26 to 30	1	16.7%	1	9.1%	2	11.8%
31 to 35	3	50.0%	5	45.5%	8	47.1%
36 to 40	1	16.7%	2	18.2%	3	17.6%

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p-value = 0.8815(Student' t Test)

In Control Object Subtest for 4 years old children, there was also that 52.9% of girls obtained raw score between 16 and 21 points and in the same category was only 28.6 for boys. In the range 22 to 27 points there were boys (42.9%) and girls (5.9%).

Table 3: Distribution of scores in the object control subtest for 4 years old children, and girls (n = 17) and boys (n = 28).

Raw Score	Girls		Boys		Total	
	n	Percentage	n	Percentage	n	Percentage
4 to 9	4	23.5%	1	3.6%	5	11.1%
10 to 15	2	11.8%	2	7.1%	4	8.9%
16 to 21	9	52.9%	8	28.6%	17	37.8%
22 to 27	1	5.9%	12	42.9%	13	28.9%
28 to 33	0	0.0%	4	14.3%	4	8.9%
34 to 39	1	5.9%	1	3.6%	2	4.4%

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p-value = = 0.0051* (Student' t Test)

In evaluating the performance Control Object subtest of under 5 years old children was shown statistically significant difference (p = 0.0051 *), so there was a real performance difference between boys and girls.

Table 4: Distribution of scores in the object control subtest for 5 years old children, and girls (n = 6) and boys (n = 11).

Raw Score	Girls (n=6)		Boys (n=11)		Total (n=17)	
	n	Percentage	n	Percentage	n	Percentage
22 to 27	3	50.0%	0	0.0%	3	17.6%
28 to 33	3	50.0%	5	45.5%	8	47.1%
34 to 39	0	0.0%	4	36.4%	4	23.5%
40 to 45	0	0.0%	2	18.2%	2	11.8%

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p-value = = 0.0065* (Student' t Test)

The implementation's end result of the protocol TGMD-2 for 4 years old children showed that both groups tend to perform classified as "Medium". No child was classified as "Above Average", "Superior" or "Very High".

Table 5: TGMD-2 Classification for 4 years old children, and girls (n = 17) and boys (n = 28).

	Girls		Boys		Total	
	n	Percentage	n	Percentage	n	Percentage
Very High	0	0.0%	0	0.0%	0	0.0%
Superior	0	0.0%	0	0.0%	0	0.0%
Above average	0	0.0%	0	0.0%	0	0.0%
Medium	10	58.8%	20	71.4%	30	66.7%
Under average	3	17.6%	6	21.4%	9	20.0%
Scarce	2	11.8%	2	7.1%	4	8.9%
Very scarce	2	11.8%	0	0.0%	2	4.4%

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p-value = = 0.3371* (U of Mann-Whitney Test)

The final rating issued by the application of the protocol TGMD-2 for 5 years old children showed that children of both sexes presented a performance classified as "Medium". It was observed that 66.7% of girls and 63.6% of boys are in the category "Medium", which is common for both sexes among 5 years old children, as shown in table and graph below.

Table 6: TGMD-2 Classification for 5 years old children, and girls (n = 6) and boys (n = 11).

	Girls		Boys		Total	
	n	Percentage	n	Percentage	n	Percentage
Very High	0	0.0%	0	0.0%	0	0.0%
Superior	0	0.0%	0	0.0%	0	0.0%
Above average	0	0.0%	1	9.1%	1	5.9%
Medium	4	66.7%	7	63.6%	11	64.7%
Under average	2	33.3%	3	27.3%	5	29.4%
Scarce	0	0.0%	0	0.0%	0	0.0%
Very scarce	0	0.0%	0	0.0%	0	0.0%

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p-value = = 0.6877* (U of Mann-Whitney Test)

Thus, in view of the results obtained with the TGMD-2, it was shown that even children being assisted by specialized professionals, the level of development of motor skills and object control has not progressed to a higher level, staying in the "Media" demonstrating that such performance profile deserves interference and encouragement from professionals.

CONCLUSION

Physical fitness related to motor performance was considered ordinary, that is, getting the "Medium". In the locomotor subtest for 4 years old children were observed best performance among boys. In the locomotor subtest for 5 years old children, boys and girls had equivalent performance. In Control Object Subtest for 4 year olds, boys showed higher levels of motor ability. In Control Object Subtest for 5 years old children, boys showed higher levels of motor ability. However, the overall protocol TGMD-2, where the motor performance is assessed in seven categories ranging from "Very High" (best score) to "Very scarce" (worse outcome), comparing the result obtained by the groups of 4 years old (boys and girls) showed no real difference between the two categories of sex, it was observed that both are in the category "Medium", which is the tendency of the recruited children for this study. For 5 years old children, the overall protocol TGMD-2 showed that the category "Medium" is the tendency in both sexes.

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MOTOR SKILL PROFILE OF STUDENTS FROM THE SECRETARIA MUNICIPAL DE BELÉM: CHILDHOOD EDUCATION UNIT CENTER

ABSTRACT

This study aimed to evaluate the motor profile of children in relation to the skill levels of locomotion and object control. Study subjects were 62 students of 4 and 5 years old, seen in early childhood education program at the local Belém schools. To do so, we applied the Test of Gross Motor Development (TGMD-2) Ulrich (2000). In the locomotor subtest for 4 years old children, there was an improvement in the performance of boys (p-value = 0.0287 *). In the locomotor subtest for 4 years old children, boys showed higher levels of motor ability (p-value = 0.0051 *). In the locomotor subtest for 5 years old children, boys had higher levels of motor ability (p-value = 0.0065 *). TGMD-2 classification for every 4 years old child showed that 58.8% of girls and 71.4% of boys are in the category "medium", and this is the occurrence for both sexes (p-value = 0.3371). No evaluated child was classified as "above average", "superior" or "very superior". TGMD-2 classification for 5 years old children showed that 66.7% of girls and 63.6% of boys are in the category "average" which occurs in both sexes. The study concludes that children do not have advanced the level of development and the predominant profile was "average".

KEYWORDS: Child development. Motor skill. Locomotor ability. Object control.

PROFIL DE L'ÉCOLE DE PILOTAGE DU SECRETARIAT DE BELÉM VILLE: EDUCATION DE LA PETITE ENFANCE UNIT

RÉSUMÉ

Cette étude visait à évaluer le profil motrices des enfants par rapport aux niveaux de compétence de la locomotion et le contrôle de l'objet. Les sujets étaient 62 élèves de 4 et 5 ans, vu dans le programme d'éducation préscolaire dans les écoles locales de Belém. pour évaluer le test nous avons appliqué le test du développement moteur brut (TGMD-2) Ulrich (2000). L'épreuve du Mouvement pour les enfants de 4 ans, il y avait amélioration de la performance des garçons (p=0,0287*). L'épreuve du Mouvement pour 4 ans, les garçons ont montré des niveaux plus élevés de capacités motrices (valeur p=0,0051*). L'épreuve de locomotion pour les enfants de 5 ans, les garçons avaient des niveaux plus élevés de capacités motrices (valeur p=0,0065*). La classification TGMD-2 pour toutes les enfants de 4 ans a montré que 58,8% des filles et 71,4% de garçons sont inscrits dans la catégorie «moyen», et c'est la tendance chez les deux sexes (p = 0,3371). Aucun enfant a été classé comme évalués "supérieurs à la moyenne", «supérieur» ou «très supérieur». La classification TGMD-2 pour les enfants de 5 ans a montré que 66,7% des filles et 63,6% de garçons sont inscrits dans la catégorie "moyen" qui est la tendance dans les deux sexes. L'étude conclut que les enfants n'ont pas avancé au niveau de développement et le profil prédominant était "moyenne".

MOTS CLES: Développement des enfants. Habileté moteur. Habileté de locomotion. Contrôle de l'objet.

PERFIL MOTOR DE LOS ALUMNOS DE LA SECRETARÍA DE LA CIUDAD DE BELÉM: UNIDAD DE EDUCACIÓN INFANTIL

RESUMEN

Este estudio tuvo como objetivo evaluar el perfil motor de los niños en relación con los niveles de competencia de la locomoción y control de objetos. Los sujetos fueron 62 estudiantes de 4 y 5 años de edad, que aparece en el programa de educación en las escuelas locales de Belém. Para evaluar la prueba se aplicó el test de desarrollo motor grueso (TGMD-2) Ulrich (2000). En la parte de la prueba de Movimiento para niños de 4 años, hubo una mejoría en el desempeño de los varones (p=0.0287*). En la parte de la prueba del Movimiento para niños de 4 años, los niños mostraron niveles más altos de la capacidad motora (p-valor = 0,0051 *). En el subtest de locomoción para niños de 5 años de edad, los niños tenían niveles más altos de la capacidad motora (p-valor = 0.0065*). La clasificación TGMD-2 para todos de 4 años, mostró que 58,8% de las niñas y el 71,4% de los niños están en la categoría "medio", y esta es la tendencia en ambos sexos (p = 0,3371). Ningún niño fue clasificado como evaluado "por encima del promedio", "superior" o "muy superior". Clasificación TGMD-2 para niños de 5 años, mostró que el 66,7% de las niñas y el 63,6% de los niños están en la categoría "medio", que es la tendencia en ambos sexos. El estudio concluye que los niños no han avanzado al nivel de desarrollo y el perfil predominante fue "promedio".

PALABRAS CLAVE: desarrollo de los niños. La habilidad motora. Habilidad de locomoción. Control de objeto.

PERFIL MOTOR DE ESCOLARES DA SECRETARIA MUNICIPAL DE BELÉM: UNIDADE DE EDUCAÇÃO INFANTIL**RESUMO**

Este estudo teve o objetivo de avaliar o perfil motor de crianças em relação aos níveis de habilidade de locomoção e de controle de objeto. Foram sujeitos do estudo 62 escolares com 4 e 5 anos de idade, atendidos no programa de educação infantil da Secretaria Municipal de Belém. Para avaliar os escolares foi aplicado o teste de Desenvolvimento Motor Grosso (TGMD-2) Ulrich (2000). No Subteste de Locomoção, para crianças de 4 anos, houve melhora de desempenho dos meninos (p-valor = 0.0287*). No Subteste de Locomoção, para crianças de 4 anos, os meninos apresentaram melhores níveis de habilidade motora (p-valor = 0.0051*). No Subteste de Locomoção para crianças de 5 anos, os meninos apresentaram melhores níveis de habilidade motora (p-valor = 0.0065*). A classificação TGMD-2 para todos de 4 anos mostrou que 58.8% das meninas e 71.4% dos meninos estão na categoria "média", sendo esta é a tendência em ambos os sexos (p-valor = 0.3371). Nenhuma criança avaliada obteve classificação "acima da média", "superior", ou "muito superior". A classificação TGMD-2 para crianças de 5 anos mostrou que 66.7% das meninas e 63.6% dos meninos estão na categoria "média" sendo esta a tendência em ambos os sexos. O estudo conclui que as crianças não avançaram no nível de desenvolvimento e o perfil predominante foi "médio".

PALAVRAS-CHAVE: Desenvolvimento de crianças. Habilidade motora. Habilidade de locomoção. Controle de objeto.

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