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Pedagogical activities for motor development in 4th grade elementary school students: analysis of a motor circuit in a rural school in Rio Preto da Eva (AM)

Pedagogical motor development activities in fourth-grade elementary students: analysis in a motor circuit in a rural school in Rio Preto da Eva (AM)

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SUMMARY

Motor development in the school context is fundamental for the learning and integral formation of students. This study aimed to analyze the motor performance of 4th-grade elementary school students in structured motor circuit pedagogical activities, with emphasis on laterality, balance, coordination, and spatial orientation. Twenty-eight students participated, 12 boys and 16 girls, including three students with Autism Spectrum Disorder (ASD, level 2) and one student with left-sided paralysis. Data were analyzed using descriptive and inferential statistics, employing the chi-square test (ÿ² ÿ 7.21; p > 0.05) and Cramer's V coefficient (V = 0.50). The results indicated generalized motor difficulties, with progressive improvement with the...

Repetition of activities. It is concluded that structured pedagogical practices contribute significantly for motor development, especially in inclusive contexts.
Keywords: Motor development; School physical education; Inclusion; Laterality; Motor coordination.

ABSTRACT

Motor development in school contexts is essential for students' learning and overall development. This study aimed to analyze motor performance in fourth-grade students through structured motor circuit activities focusing on laterality, coordination, balance, and spatial orientation. A total of 28 students participated, including students with ASD and motor impairment. Data were analyzed using

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descriptive and inferential statistics, including the Chi-square test (ÿ² ÿ 7.21; p > 0.05) and Cramer's V (V = 0.50). Results showed generalized motor difficulties with improvement through repetition.
Keywords: Motor development; School Physical Education; Inclusion; laterality; Engine coordination.

1. INTRODUCTION

Motor development is an ongoing process that involves the acquisition of skills.

Fundamental throughout childhood and influenced by biological, environmental, and educational factors.

(Gallahue & Ozmun, 2005; Haywood & Getchell, 2014).

Laterality, balance, and motor coordination are essential components for...

global child development (Le Boulch, 1987). Deficits in these skills may

compromising motor performance and learning. In inclusive contexts, repetition and

Pedagogical adaptations are fundamental to the progress of students (Vygotsky, 1991; Ayres, 2005).

2. METHODOLOGY

- Type of study

Descriptive field research with a mixed-methods approach (qualitative and quantitative).

- Participants

• 28 students

• 12 boys

• 16 girls

• 3 students with ASD

• 1 student with body paralysis (left side)

- Location

Francisco Alves Municipal School – Rural Area – Rio Preto da Eva (AM)

- Materials

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• Hula hoops

• Cones

• Staircase drawn on the floor

• String

• Procedures (7 stations)

1. Balance
2. Laterality
3. Jumps
4. Coordination
5. Displacement
6. Speed
7. Rope balancing

• Evaluation criteria

• He accomplished

• Difficulty

• Did not perform

• Data analysis

Descriptive and inferential statistics (chi-square test and Cramer's V coefficient).

3. RESULTS

Table 1 – Students with disabilities

Group	**Initial difficulty**	**Improves Paralysis**	High
	+5%		
TEA	High	+10%	

Table 2 – Boys' Performance

Category	**No.**	**Percentage**
Difficulty	12	100%

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They concluded	5	42%
They did not complete it.	7	58%

Table 3 – Girls' Performance

Category	No.		Percentage
They improved.			31%
They haven't improved.	5		12%
They did not complete it.	2		6%
Overall difficulty	1		50%

Table 4 – Comparison

Group				
	Success only	8	Difficulty of 5	He did not perform. 7
Boys	0			
Girls	5	5	10	1

Table 5 – Summary

Category	Percentage
Overall difficulty	82%
It improves with repetition.	18%

- Statistical analysis

The chi-square test indicated no significant association between sex and motor performance.

(ÿ² ÿ 7.21; df = 2; p > 0.05).

Cramer's V coefficient indicated a moderate to high effect (V = 0.50).

4. DISCUSSION

The results show widespread motor difficulties, especially in laterality.

corroborating classic studies in the field (Le Boulch, 1987). The improvement observed through

Repetition reinforces the importance of structured pedagogical practice. The moderate effect identified

This suggests a significant influence of environmental and educational factors.

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CONCLUSION

The study demonstrates poor motor development among the schoolchildren evaluated, with improvement after the Repetition of activities. The need for systematized pedagogical interventions is reinforced. especially in inclusive contexts.

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