Sinergia Académica
ISSN: 2765-8252

Volumen: 8
Nro. 1
Año: 2025

Recepción:9-10-2024 / Revisión:6-11-2024 / Aprobación:6-12-2024 / Publicación:27-1-2025

System of individual and cooperative games in Basic Motor Skills in Elementary School students of the Quisapincha Educational Unit

Sistema de juegos unitarios y de cooperación en las Habilidades Motrices Básicas en escolares de Educación Básica de la Unidad Educativa Quisapincha

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Resumen

El juego en la etapa escolar se considera una necesidad básica, esencial para el desarrollo motriz, la inteligencia, el equilibrio físico y emocional, los juegos se relacionan directamente con la formar de convivir e interactuar en la sociedad, la aplicación de una amplia diversidad de juegos unitarios y de cooperación generar interés, motivación, fortalecen el aprendizaje lúdico y motriz en un ambiente libre, están estrechamente relacionados con el desarrollo motriz en la etapa escolar, nuestro objetivo fue analizar cómo inciden los sistemas de juegos unitarios y cooperativos en las habilidades motrices básicas en los escolares de Educación General Básica de la Unidad Educativa Quisapincha. La investigación fue realizada con un enfoque cualitativo y cuantitativo, el tipo de investigación fue cuasi experimental ya que se utilizó los mismos instrumentos y parámetros de investigación en su periodo pre-test y post-test, se trabajó con una muestra de estudio de 24 estudiantes, escolares de Educación General Básica de la Unidad Educativa Quisapincha que tienen una edad de 5 a 6. Se aplicó el test de Denver para valorar el desarrollo motor de los escolares. El resultado de las diferencias entre pre y el post test fueron entre 1 y 2 puntos, con una media de 1,373 y una leve disminución en la variabilidad (DS de -

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0,0836). Se concluye que con el valor de p = 0,000023, indica una diferencia estadísticamente significativa, lo que sugiere que la intervención tuvo un impacto positivo en el desarrollo de las habilidades motrices de los escolares.

Palabras clave: Juegos, Motricidad, Habilidades, Escolares

Abstract

The game in the school stage is considered a basic need, essential for motor development, intelligence, physical and emotional balance, games are directly related to the way of living and interacting in society, the application of a wide variety of unitary and cooperative games generate interest, motivation, strengthen playful and motor learning in a free environment, are closely related to motor development in the school stage, our objective was to analyze how the unitary and cooperative game systems affect basic motor skills in schoolchildren of General Basic Education of the Quisapincha Educational Unit. The research was carried out with a qualitative and quantitative approach, the type of research was quasi-experimental since the same research instruments and parameters were used in its pre-test and post-test period, we worked with a study sample of 24 students, schoolchildren of General Basic Education of the Quisapincha Educational Unit who are 5 to 6 years old. The Denver test was applied to assess the motor development of schoolchildren. The differences between pre- and post-test were between 1 and 2 points, with a mean of 1.373 and a slight decrease in variability (SD of -0.0836). It is concluded that with the value of p = 0.000023, it indicates a statistically significant difference, suggesting that the intervention had a positive impact on the development of motor skills in schoolchildren.

Keywords: Games, Motor skills, Skills, School

Introduction

Since ancient times, a wide range of recreational activities and games have been developed. (Zanor, 2021) explains that in Ancient Greece great importance was given to body aesthetics, which is why games and races were practiced as a physical activity for aesthetic purposes. When the act of playing is associated with running, it surpasses its basic function of displacement and survival to become a technique for competitive, sporting or recreational purposes, its nature as a physical practice undergoes changes in terms of values and social meanings (Ballester-Martínez,

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2022). Another key aspect in ancient times was the act of throwing, for (Aguilar-Ozejo, 2024) this act is within the scope of fundamental motor skills and abilities and can be defined in the context of physical education as a capacity acquired through motor learning, in this way carrying out a series of motor actions, in order to achieve a goal. The comprehensive development of children in their first years of life is a process that encompasses not only physical aspects, but also cognitive, social and emotional ones. In this context, Physical Education (PE) plays a fundamental role in allowing children to discover and experience the world around them through their body and movement. It is through play and motor activities that children acquire basic skills that will be fundamental in their daily lives (Torres Campos, 2021), in this way they begin to build their thinking and develop their social and emotional capacities. Play, in its different forms, is presented as an essential educational tool that, beyond being a playful activity, allows children to explore, know and master the environment that surrounds them (Constante, 2024). Through individual and cooperative play, children develop skills such as observation, ingenuity, patience, while strengthening their ability to work as a team and forging affective relationships that will be key to their emotional growth (Gallardo, 2023). The child from 0 to 6 years old, in the context of Physical Education (PE), finds in his body and in movement, the main ways that allow him to come into contact with reality, thus acquiring the first knowledge of the world in which he grows and develops fully in its physical, social and cognitive aspects, that is, he experiences the development of motor skills (Hernández, 2022); the continuous discovery of one's own body and the exploration of a multitude of sensations makes bodily actions and functions possible, in this way they will constitute the experiential arsenal necessary for the development of motor activity in children (Bonilla, 2018).

Individual games

Play is an integral activity in child development, as it acts as a bridge between learning and the child's integral growth. According to Piaget, play is essential for cognitive development (Alomá Bello, 2022), as it allows children to actively interact with their environment and explore new ideas and concepts, for his part, Bruner. While highlighting the importance of play in the formation of mental schemes that allow children to categorize and organize their experience

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(López, 2023), Vygotsky highlights that, through play, children not only develop cognitive skills, but also emotional and social skills (Martínez, 2021). Symbolic play, in particular, is a space where children can represent roles and situations, which helps them better understand social dynamics and develop empathy, it has a direct impact on physical and psychomotor development (Villavicencio, 2022). Games involve physical activity, such as running, jumping or throwing objects, contribute to the development of gross and fine motor skills, which is essential for body development and motor coordination. According to Pellegrini and Smith (1998) cited in (González-Villavicencio, 2022) playful activity also promotes mental health, as it reduces stress and improves socio-emotional well-being. In the educational context, gaming is not only a teaching tool, but also a strategy to foster student motivation and engagement. The use of educational games can facilitate the understanding of abstract concepts and improve information retention. According to recent studies, gamification in the classroom can improve academic performance and increase participation, suggesting that games can be a powerful tool to promote active learning (Ortega, 2022).

Cooperative games

Cooperative games represent an educational methodology that transcends mere entertainment, consolidating itself as a fundamental pedagogical tool for the comprehensive development of children. By focusing on cooperation rather than competition, these games facilitate the development of essential social skills, such as effective communication, deep empathy, and constructive conflict resolution. Cooperation in the playful context fosters an environment where children learn to value and respect the contributions of others (Ambriz, 2021), which strengthens group cohesion and a sense of community. These types of games promote inclusion, since all participants must work together to achieve a common goal, regardless of their individual abilities. This feature is particularly beneficial in educational environments, where the diversity of abilities and levels of development can be considerable when planning school activities. On the other hand, it should be considered to eliminate the focus on individual competition, in order to mitigate the anxiety associated with failure and promote a climate of mutual support and solidarity in classrooms (Mamani-Jilaja, 2023).

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In the field of physical education, cooperative games are especially valuable for developing motor and coordination skills. (Tapia, 2023) emphasizes that these games allow students to apply their skills collaboratively, which not only improves physical performance, but also reinforces the learning of values such as respect and tolerance, which have currently been lost due to the excessive use of technology.

From a pedagogical perspective, unitary and cooperative games are revealed as an effective tool for teaching both cognitive and emotional skills; they help solve problems, with the application of these games, children develop critical-creative thinking skills; in this way, the need arises to coordinate efforts and apply individual and group strategies to promote the development of emotional skills, such as self-regulation and empathy (Guerrero, 2024).

The implementation of unitary and cooperative games in the classroom also has positive implications for behavior management. Research suggests that these games can reduce the incidence of disruptive behaviors by channeling students' energy into constructive and collaborative activities (Morales, 2024). This not only improves the learning environment but also contributes to the development of a positive school climate, where all students feel valued and supported. Finally, unitary and cooperative games can be effectively integrated into various areas of the curriculum (Restrepo, 2023), from physical education to teaching social and emotional skills, as well as environmental awareness. This multidisciplinary approach allows teachers to use games as a versatile tool for meaningful learning, adapting them to different educational objectives and diverse student needs. After reviewing the supporting literature, our purpose of study focuses on analyzing how unitary and cooperative game systems affect basic motor skills in students of General Basic Education at the Quisapincha Educational Unit.

Materials y methods

The research was conducted with a qualitative and quantitative approach, which is formed from an inductive deductive design, through which emphasis is placed on the comparison of theoretical postulates for scientific writing of the state of the art based on the variables proposed to support the scientific theory, subsequently the collection and analysis of data was carried out through field work to analyze the motor skills of schoolchildren,

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The type of research was quasi-experimental since the same instruments and research parameters were used in its pre-test and post-test period, in both the performance in the dependent variable was compared to analyze the difference found after the application of the intervention program, for our case study to correlate the incidence that unitary and cooperation games present in the development of basic motor skills in schoolchildren.

Subjects: We worked with a study sample of 24 students who are 5 to 6 years old in Basic General Education of the Quisapincha Educational Unit.

Instrument: The Denver Developmental Scale is a widely used assessment tool to evaluate motor, social, and cognitive development in children from birth to 6 years of age. This instrument was developed by American physicians William K. Frankenburg and Josiah B. Dobbs in the 1960s and has been revised and updated.

The purpose of the Denver Scale is to identify possible delays or problems in children's development, providing a guide for early intervention and monitoring motor development over time. The scale consists of different tests that assess various areas of development. Below are the parameters:

- Gross motor skills: Assesses skills such as rolling over, sitting, crawling, standing, walking, running, and jumping.
- Fine motor skills: Assesses skills such as grasping small objects, using cutlery, drawing, and writing.
- Language: Assesses the development of receptive language (understanding words and commands) and expressive language (speaking and communicating).
- Socio-emotional: Evaluates social skills, expression of emotions and symbolic play.
- Cognitive: Evaluates problem-solving skills, reasoning, memory and general cognitive development.

The evaluation was carried out through direct observation of the child, according to the performance of specific tasks adapted to each age group. However, in our case study we only focused on the evaluation of motor skills. Below are the main results.

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Results and discussion

Table 1. Characterization of the study sample

CHARACTERIZATION VARIABLES	MALE		FEMALE		TOTAL	
	Mean	DS	Mean	DS	Mean	DS
Age	5,54	0,25	5,59	0,24	5,57	0,243

The table shows the means and standard deviations (SD) of the age variable for the male and female groups. The mean age in men is 5.54 years with a standard deviation of 0.25, while in women the mean is slightly higher, with 5.59 years and a standard deviation of 0.24, which indicates little variability in both groups. In total, the overall mean age is 5.57 years with a standard deviation of 0.243, reflecting a very similar age distribution between men and women, with low dispersion in the observed values.

Qualitative results in motor parameters

Table 2. Initial diagnosis

Nº	Age	Gender	Result
1	5 years and 2 months.	Female	This 5-year-old girl has a significant delay in the areas of gross and fine motor skills. She is unable to perform tasks that require coordination such as hopping on both feet and has difficulty with activities that require precise manipulation, such as stringing beads.
2	5 years and 5 months.	Female	Although this girl can walk in a straight line, she shows difficulty around fine motor skills, specifically in the ability to hold a pencil correctly. Her performance suggests the need for follow-up to prevent further difficulties.
3	5 years and 11 months.	Female	Although this girl is able to hop on one foot, she has difficulty cutting with scissors, indicating a possible difficulty in the area of fine motor skills that could benefit from early intervention
4	5 years and 7 months.	Female	This girl shows adequate skills in riding a bicycle; however, she has difficulty attempting tasks such as tying shoelaces, suggesting a weakness in fine motor skills.
5	5 years and 10 months.	Female	The girl shows a noticeable delay in her motor development. She is unable to stand on one foot for an extended period and also has trouble performing basic dressing tasks such as buttoning her clothes, indicating difficulties in both areas: gross and fine motor skills.
6	5 years and 8 months.	Female	This child is delayed in both her ability to run quickly and her ability to make detailed drawings, indicating problems in both gross and fine motor areas.
7	5 years and 4 months	Female	Although she can climb stairs by alternating feet, this child has problems with coordination when playing catch, suggesting fine motor difficulties that could affect her development in activities requiring precision.
8	5 years	Female	This child shows a delay in both areas of motor development. She has

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	and 6 months.		clumsiness when performing jumps and difficulty performing simple tasks such as using a shirt button, indicating the need for gross and fine motor intervention.
9	5 years and 9 months.	Female	While this child can throw a ball, she shows difficulty trying to cut out simple shapes with scissors, suggesting fine motor problems and a possible need for tracking and support.
10	5 years and 11 months.	Female	The child shows adequate line-walking skills, but has significant fine motor difficulties, particularly in tasks such as threading, which could interfere with her progress in school activities.
11	5 years and 3 months.	Female	This child can stand on one foot, but has difficulty opening and closing clothing zippers, indicating a weakness in fine motor skills that could benefit from targeted interventions.
12	5 years and 6 months.	Female	Delays in this child's motor development are noted. She has difficulty both in heel-to-toe walking and in making simple drawings such as a circle, suggesting problems in both gross and fine motor areas.
13	5 years and 7 months.	Female	This child has delays in both running coordination and the ability to fasten small buttons, indicating difficulties in both motor areas that may require further evaluation.
14	5 years and 10 months.	Female	Although this child can walk backwards, she shows significant difficulties in fine motor skills, particularly in writing her name legibly, suggesting a need for attention and support in this area.
15	5 years and 3 months	Mean	This child shows considerable delay in motor development. She has difficulty balancing on one foot and using cutlery appropriately, indicating difficulties in both gross and fine motor areas.
16	5 years and 11 months.	Mean	This child is seen to have delays in both his ability to jump and his ability to tie shoelaces, suggesting the need for intervention in both motor areas to improve his overall development.
17	5 years and 7 months	Mean	This child can run but has trouble making precise hand movements such as buttoning, suggesting a fine motor difficulty that could benefit from appropriate monitoring and support.
18	5 years and 10 months	Mean	This child is seen to have difficulty climbing stairs, as well as using writing tools, indicating a delay in both motor areas that could require specialized intervention.
19	5 years and 6 months	Mean	Although this child can throw a ball, he has trouble cutting out shapes with scissors, suggesting fine motor difficulties and the need for monitoring to prevent further delays.
20	5 years and 8 months	Mean	This child is delayed in both motor areas. He runs awkwardly and has difficulty holding a pencil correctly, indicating the need for further assessment and developmental support.
21	5 years and 9 months.	Mean	Delays are seen in this child in both his ability to jump rope and his ability to fasten small buttons, suggesting difficulties in both motor areas that may require early intervention.
22	5 years and 5 months.	Mean	This child has problems with both gross and fine motor skills. He shows difficulty with jumping and making geometric drawings, indicating a delay in his overall development that could benefit from specialized support.
23	5 years and 4 months.	Mean	This child has difficulty walking in a straight line and stringing beads, suggesting a delay in both gross and fine motor areas and the need for intervention to improve his development.
24	5 years and 2 months.	Mean	Significant delays are seen in this child in both motor areas. He has difficulty standing on one foot and stacking small blocks, indicating the need for close monitoring and developmental support

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Table 3. Example the individual and group activities - intervention program.

Individual Games				
Strategy	**Objective**	**Materials**	**Procedure Frequency**	**Success Indicators**
Hopscotch	Improve coordination, balance and gross motor skills	Chalk, small stones	1. Draw hopscotch on the floor. 2. Explain the game. 3. Hop on one leg and pick up the stone	3 times a week 20 minutes per session Improve balance and coordination by hopping on one leg.
Treasure Hunt	Encourage deduction, fine motor skills, and decision making	Written clues, small objects, or treasures	1. Prepare clues and hide treasures. 2. Follow clues to find the treasure.	1x per week 30 minutes per session Ability to solve problems and manipulate small objects.
Cooperative Games				
The Enchanted Lake	Promote collaboration and gross motor development	Chalk, chalkboards or circles	1. Draw an enchanted lake with stones.	The Enchanted Lake
Evaluating Progress	Review the impact of activities on motor skills	Qualitative Observations	1. Document individual progress.	Evaluating Progress

The implementation of these strategies through unitary and cooperative games were designed to significantly improve the fine and gross motor skills of children between 5 and 6 years old. Hopscotch and treasure hunts encourage coordination, balance, and decision making, while developing gross and fine motor skills through activities that require precision and control. On the other hand, cooperative games such as the enchanted lake and the caterpillar race strengthen gross motor skills by promoting coordinated and controlled movements, and also promote social and teamwork skills, essential for the comprehensive development of children. These carefully selected games offer a balance between physical and emotional challenges, creating a playful and educational environment that facilitates the improvement of schoolchildren's motor skills, paving the way for facing later stages in their development.

Table 4. Post-intervention observation of motor parameters

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Nº	Age	Gender	Result
1	5 years and 2 months.	Female	The child has improved coordination and can now hop on both feet.
2	5 years and 5 months.	Female	She has shown progress in manipulative activities such as stringing beads.
3	5 years and 11 months.	Female	She can now hold a pencil correctly and walks in a straight line with greater stability. Continued tracking is recommended.
4	5 years and 7 months.	Female	She has improved in cutting with scissors and can hop on one foot with greater confidence, indicating progress in fine motor skills.
5	5 years and 10 months.	Female	She can tie her shoelaces more easily, suggesting improved development in fine motor skills.
6	5 years and 8 months.	Female	She has shown progress in balance and can now stand on one foot for a longer period of time. Improvement in basic dressing.
7	5 years and 4 months	Female	Noticeable improvement in the ability to run quickly and make more detailed drawings.
8	5 years and 6 months.	Female	She has improved coordination when playing catch with a ball, suggesting progress in fine motor skills.
9	5 years and 9 months.	Female	She has made progress in jumping and can use a shirt button with greater skill.
10	5 years and 11 months.	Female	She can cut out simple shapes with scissors and has improved her ability to throw a ball.
11	5 years and 3 months.	Female	She has improved in threading skills and can walk on a line with greater control.
12	5 years and 6 months.	Female	He can now open and close clothing zippers with more ease, indicating progress in fine motor skills.
13	5 years and 7 months.	Female	Improves heel-to-toe walking and has become more accurate at making simple drawings.
14	5 years and 10 months.	Female	Improves coordination while running and can fasten small buttons with more ease.
15	5 years and 3 months	Mean	Has shown significant progress in writing his name legibly.
16	5 years and 11 months.	Mean	Noticeable improvement in balancing on one foot and using cutlery. Improves ability to jump and tie shoelaces with greater skill.
17	5 years and 7 months	Mean	Can perform precise hand movements, such as buttoning, with more ease.

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18	5 years and 10 months	Mean	Improves ability to climb stairs and use writing tools.
19	5 years and 6 months	Mean	Now cuts out shapes with scissors with greater accuracy and improves at throwing a ball.
20	5 years and 8 months	Mean	Has noticeable improvement in running ability and pencil holding.
21	5 years and 9 months.	Mean	Improves ability to jump rope and fasten small buttons.
22	5 years and 5 months.	Mean	Improves ability to jump and make geometric drawings.
23	5 years and 4 months.	Mean	Improves straight line walking and bead stringing skills.
24	5 years and 2 months.	Mean	Has shown significant progress in balance and small block application.

Individual games, such as hopscotch and scavenger hunts, were designed to improve gross and fine motor skills, as well as foster decision-making and coordination. Post-test results indicate significant improvement in children who participated in these activities; several children were observed to improve their ability to maintain balance and manipulate small objects, such as stringing beads or cutting with scissors, suggesting that individual activities were effective in developing these skills.

Their progress aligns with the theories of Piaget and Vygotsky, who highlighted the importance of play in cognitive and emotional development. The improvement in fine and gross motor skills observed in the post-test supports the idea that individual play is not only a recreational activity, but also an integral educational strategy that facilitates the development of general and specific motor skills.

Cooperative games, such as “The Enchanted Lake,” were implemented to promote collaboration and the development of gross motor skills in a team-based environment. The post-test results show that these games had a positive impact on students' gross motor skills as well as social skills. Children who initially showed difficulties in activities such as jumping or running showed notable improvements in these areas post-intervention.

The effectiveness of cooperative games in this context can be understood through Johnson and Johnson's collaborative learning theory, which highlights how cooperation in games fosters an environment where students learn to value the contributions of others and develop age-

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appropriate social and emotional skills. The observed improvement in coordination and teamwork suggests that these games not only benefit physical development but also strengthen the social and emotional skills of schoolchildren.

Comparing the results of the pre-test and post-test, a general advance in students' motor skills is observed, indicating that the techniques implemented, both in unitary and cooperative games, were effective. For example, several children who initially had difficulty performing simple tasks, such as tying shoelaces or buttoning small buttons, showed significant improvements in the post-test. This reflects not only progress in fine motor skills, but also an improvement in self-esteem and confidence in their own abilities.

This result suggests that a playful approach using strategies that combine unitary and cooperative games can be highly effective in improving motor skills in school age. The progression observed in the students validates the effectiveness of the techniques used and underlines the importance of a pedagogical approach that integrates different types of playful activities for multidirectional development in schoolchildren.

Quantitative results of motor skills parameters

Table 5. Pre-intervention motor skills

PRETEST	N	Min	Max	M	DS
Motor skills	24	1,00	2,00	1,4167	0,504

The table shows the results of motor skills in the pre-test for a sample of 24 participants. The minimum value recorded was 1.00 and the maximum 2.00, with a mean of 1.4167, indicating that, on average, motor skills are at an intermediate level between the extreme values. The standard deviation is 0.504, which reflects a moderate dispersion in the data, indicating some variability in the motor skills of the participants before the intervention or treatment.

Table 6. Total pre-intervention motor skills

		f	%
Motor skills	Does not comply with the activity	14	58,3
	Partially complies	10	41,7
	Total	24	100,0

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The table reflects the distribution of motor skills in three categories. 58.3% of participants (14 people) did not complete the activity, while 41.7% (10 people) partially completed the activity. These data show that a greater proportion of participants did not achieve adequate compliance with the motor skills assessed, with a total of 24 participants, representing 100% of the sample.

Table 7. Motor skills post-intervention

POSTEST	N	Min	Max	M	DS
Motor skills	24	2,00	3,00	2,79	0,42

The table presents the results of motor skills in the post-test for a sample of 24 participants. The minimum value recorded was 2.00 and the maximum 3.00, with a mean of 2.79, indicating that, on average, participants achieved a significant level of motor skills after the intervention. The standard deviation is 0.42, suggesting that motor skills improved, and age-appropriate motor performance can be observed after the post-test.

Table 8. Differences between pre and post intervention

PRE AND POST INTERVENTION ANALYSIS	N	Min	Max	M	DS
Motor skills POSTEST	24	2	3	2,79	0,42
Motor skills PRETEST	24	1	2	1,417	0,50
Difference between post - pre test		1	2	1,373	-0,0836

The differences between the post and pre test were between 1 and 2 points, with a mean of 1.373 and a slight decrease in variability (SD of -0.0836), suggesting a significant improvement in motor skills after the intervention.

Table 9. Final analysis between pre and post intervention

PRE AND POST INTERVENTION ANALYSIS	N	Min	Max	M	DS	P

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Motor skills POSTEST	24	2	3	2,79	0,42	0,000023
Motor skills PRETEST	24	1	2	1,417	0,50	

A normality test was performed taking into account that the data does not exceed 50 data, the Shapiro-Wilk test was used, obtaining a p value of 0, therefore it was determined that the data do not have a normality, so the Wilcoxon statistical test was applied, obtaining a p value of 0.000023, which indicates that this difference is statistically significant, suggesting that the intervention had a positive impact on the development of motor skills in schoolchildren.

Conclusions

Research has shown that unitary and cooperative game systems have a significant and positive impact on the development of basic motor skills in elementary school children at the Quisapincha Educational Unit. Individual games, by focusing on coordination and fine motor skills, have improved precision and motor control, while cooperative games have enhanced gross motor skills and the ability to work as a team. This combination of techniques has facilitated comprehensive development in schoolchildren, suggesting that the implementation of both types of games is essential to optimize motor development in the early years of school age.

The practice of unitary and cooperative game systems in elementary school children at the Quisapincha Educational Unit has been effective in improving both motor skills and social and emotional competencies. Individual games allowed students to focus on specific tasks that improved their fine motor skills, while cooperative games strengthened gross motor coordination and encouraged teamwork. These practices have proven to be valuable pedagogical tools for the comprehensive development of the subjects of the study.

The assessment of basic motor skills through the practice of unitary and cooperative games showed significant improvements in the fine and gross motor skills of the schoolchildren. The regular application of these games not only allowed progress to be observed in specific skills such as jumping, running and manipulating objects, but also contributed to a more balanced and complete development in the children.

The results suggest that these games are an effective means of assessing and developing motor skills in educational contexts.

The analysis of the relationship between the unitary and cooperative game systems and the development of basic motor skills in schoolchildren revealed a positive correlation. The unitary

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Volumen: 8
Nro. 1
Año: 2025

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games encouraged concentration on individual tasks, improving fine motor skills, while the cooperative games promoted coordination and group interaction, strengthening gross motor skills. This relationship suggests that both game systems complement each other and are essential for comprehensive motor development in the subjects of the study.

Finally, since this was a small sample in which only the motor skills of schoolchildren were analyzed, the studies can be expanded in different contexts, that is, new lines of research, in new contexts and with a greater number of participants.

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