Research article

Effects of the corporeality program for the acquisition of basic motor skills in primary school students

Efectos del programa corporeidad para la adquisición de competencias motrices básicas en escolares de educación primaria

Efeitos do programa de corporeidade para a aquisição de habilidades motoras básicas em alunos do ensino fundamental

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ABSTRACT

The objective of the study was to determine the effect of the application of the Corporeidad Program for the acquisition of basic motor skills in primary school students, Huanta-Ayacucho, 2023. The research was applied, approached from the quantitative approach and quasi-design experimental. 107 students from the 6th grade of primary school participated in two groups; The Corporeity Program was applied only to the experimental group through 15 sessions in the postural perception and mobile perception and regulation dimensions. The MOBAK Battery 5-6 was applied, measuring two basic motor skills: control of objects and control of the body. The results establish that both groups (control and experimental) in the pretest do not reflect significant differences in the achievement of basic motor skills (0.170 ≥ 0.05). Likewise, it was evidenced that both groups (control and experimental) in the post-test do reflect significant differences (0.000 < 0.05), finding that the average range of the control group is 27.51 and of the experimental group notoriously higher with 73.98, giving a value for the Mann-Whitney U test of 184,500; concluding that the application of the Corporeality Program did have a significant effect on the acquisition of basic motor skills in primary school students.

Key words: Basic motor skills; Motor ability; Corporeality; School.

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RESUMEN

El estudio tuvo por objetivo determinar el efecto de la aplicación del Programa Corporeidad para la adquisición de competencias motrices básicas en escolares de educación primaria, Huanta-Ayacucho, 2023. La investigación fue aplicada, abordó desde el enfoque cuantitativo y diseño cuasi experimental. Participaron 107 estudiantes del 6° grado de primaria en dos grupos; solo al grupo experimental se aplicó el Programa de Corporeidad mediante 15 sesiones en las dimensiones percepción postural y percepción y regulación de móviles. Se aplicó la Batería MOBAK 5-6 midiendo dos competencias motrices básicas: control de objetos y control del cuerpo. Los resultados establecen que ambos grupos (control y experimental) en el pretest no reflejan diferencias significativas en el logro de las competencias motrices básicas (0.170 ≥ 0.05). Asimismo, se evidenció que ambos grupos (control y experimental) en el postest si reflejan diferencias significativas (0.000 < 0.05), encontrándose que el rango promedio del grupo control es 27.51 y del grupo experimental notoriamente más alto con 73.98, dando un valor para la prueba U de Mann-Whitney de 184,500; concluyendo que la aplicación del Programa Corporeidad si tuvo efecto significativo en la adquisición de las competencias motrices básicas en los escolares de educación primaria.

Palabras clave: Competencias motrices básicas; Habilidad motora; Corporeidad; Escolar.

RESUMO

O objetivo do estudo foi determinar o efeito da aplicação do Programa Corporeidade para a aquisição de habilidades motoras básicas em alunos do ensino fundamental, Huanta-Ayacucho, 2023. A pesquisa foi aplicada, abordada a partir da abordagem quantitativa e quase-desenho experimental. Participaram 107 alunos do 6° ano do ensino fundamental em duas turmas; O Programa de Corporeidade foi aplicado apenas ao grupo experimental através de 15 sessões nas dimensões percepção postural e percepção móvel e regulação. Foi aplicada a Bateria MOBAK 5-6, medindo duas habilidades motoras básicas: controle de objetos e controle do corpo. Os resultados estabelecem que ambos os grupos (controle e experimental) no pré-teste não refletem diferenças significativas na obtenção de habilidades motoras básicas (0,170 ≥ 0,05). Da mesma forma, evidenciou se que ambos os grupos (controle e experimental) no pós-teste refletem diferenças significativas (0,000 < 0,05), verificando se que o intervalo médio do grupo controle é de 27,51 e do grupo experimental notoriamente superior com 73,98, dando um valor para o teste Mann-Whitney U de 184.500; concluindo que a aplicação do Programa Corporeidade teve um efeito significativo na aquisição de habilidades motoras básicas em alunos do ensino fundamental.

Palavras chave: Habilidades motoras básicas; Habilidade motora; Corporeidade; Escola.

INTRODUCTION

The curricula of educational systems, in current times, are oriented towards the construction of motor competence in the field of "Physical Education"; therefore, it is the responsibility of each country to increase effective and efficient motor behaviors for any activity that involves acting with relevance. On the one hand, the World Health Organization [WHO] (2021) emphasizes that bodily activity in its various forms is a relevant factor for physical well-being and as a prevention of diseases; however, 80% of school-age youth (11 to 17 years) worldwide do not perform the recommended physical activity of one hour a day. A condition that does not favor mental, physical and emotional health, causing sedentary behaviors and a decrease in the control of their body and objects with which they interact daily to act

competently in scenarios, especially of a sports nature. On the other hand, the WHO (2020) established guidelines for the practice of varied physical activity in the school stage with a dedication of 60 minutes a day and a minimum frequency of three times a week. This provision to energize schoolchildren to maintain an active body state is not fulfilled in many countries. The United Nations Educational, Scientific and Cultural Organization [UNESCO] (2021a) mentions that the death of more than four million people could be avoided annually if they performed constant physical activity. Likewise, physical inactivity in people generates approximately 70 billion dollars in public expenses for the world economy (UNESCO, 2021b).

On the other hand, the Organization for Economic Cooperation and Development [OECD] (2019) identified three new competencies for acquisition in educational environments called transformational: a) creation of new values; b) mediation of resistance and conflicts; c) assumption of commitments. Those that include sub-competencies, one of them being procedural in nature (referring to the processes or actions to end in an achievement); this competence refers to the acquisition of motor mechanisms of the body to achieve the other competencies; it has a direct connection with the motor competence, which from the vision of global competence proposed by the OECD (2019) must be acquired compulsorily. The current global demand for physical education requires attention to two dimensions directly involved in the learning of the competencies specific to this discipline, one of them being the approach to corporeality, a central category of human motor skills that addresses the student in their dimensions of doing, thinking, feeling, knowing and communicating; that is, the person as an integral unit when interacting with others (Ministry of Education [MINEDU], 2016). The other dimension includes basic motor skills related to the current elementary condition of the student to act with motor competence in different activities, whether sports, physical or daily life, by controlling his or her body and the objects available to act in the environment and with others (Herrmann & Seelig, 2020). Both dimensions interact together; however, in physical education pedagogical spaces they are isolated.

The importance of the research is that through a corporality program (postural perception activities and perception for the regulation of mobile phones) it helps to greater acquisition of the basic motor skills of body control and object control, implying a better understanding of his or her corporality, specifically, postural control, self-perception and regulation of his or her motor skills to carry out different school, sports and household activities.

Corporeality, as a constitutive element of motor skills, is the bodily representation manifested by individuality in its actions. It refers to the person who interacts through his or her body and relationships with the external and internal world. As a systemic unit, corporeality presents a complex process of self-recognition and self-knowledge, in turn recognizing the permanent reconstruction and reorganization of his or her personality based on the experiences lived in his or her surrounding environment. Corporeality is the systemic being that perceives his or her body through the various actions, emotions and social environment in which he or she intervenes, having the ability to perceive his or her limitations and potentialities; in this process, his or her bodily sensitivity is made present for the regulation and control of himself or herself. (Mujica, 2021). Therefore, learning spaces in which student autonomy is promoted enable better self-knowledge and significant learning through his or her own effort (Moreno-Murcia et al., 2020). Corporeality from an ontogenetic position, in the process of bodily

development, people are born with a body, over the years it transforms and adapts to the environment, forming a personal corporeality as a product of lived experiences; this permanent adaptation is manifested in their new actions, emotions, thoughts and perceptions of themselves, others and the reality they live. Therefore, when we talk about corporeality, it is the person with the ability to systematize their senses in reference to their environment and lived experience, understanding in greater depth who they are and what their identity is like before others. (Águila & López, 2019).

For Murcia-Peña & Corvetto-Castro (2021) corporeality, in a sense of society, is a social being, it is a physical corpus that changes and is configured in the process of its maturation and becoming embodied and becoming a corporeal being through interaction with the social environment and constant relationships with others. While, corporeality in the spaces of didactic intervention of teaching and learning in physical education environments; Bernate (2021) emphasizes the importance of the systematic understanding and application of motor tasks in physical education environments, internalizing corporeality in the different learning spaces such as body expression, dance, sports, games, among others; actions that allow a construction of the self as one's own identity. In the physical education environment, the object of study is not only based on the student's body; but is based on their corporeality, their experiences, their emotions, their expressions and their praxis (Ogarrio et al., 2021).

Motor competence for Parlebas (2018) requires decoding processes to interpret the environment, for this, perception, as a mental process, is a key capacity that provides a basis for understanding the meaning of the situation and action; Therefore, for the author, motor behavior is mobilized within affective, cognitive and relational situations, being the foundation of motor competence. In line with what was proposed by Parlebas (2018), he emphasizes that motor competence is a consummation of motor skills that are instrumentalized in specific acts to solve motor difficulties that arise in various usual tasks. Ruiz-Pérez (2021) specifies that the learning environment of the Physical Education area is a pedagogical space that should benefit the progress of some imperceptible competencies in schoolchildren. To do this, the teacher must identify the starting situation of motor capacities/abilities and properly propose the motor tasks that promote regular change, that is, the derivation that motor interventions modify the student's behavior. In view of the importance of the learning process and the very act of teaching motor skills in the student, it is necessary to connect in the teacher the knowledge of how the learner learns a motor act and how the learner has knowledge of what he does.

Herrmann & Seelig (2020) define basic motor skills as the set of motor actions that have to do with “body control”, at the same time, it considers skills to improve body balance, rolling, jumping and running actions and “object control” which includes skills such as: throwing a mobile, catching an object, driving a mobile with the palm of the hand, driving a mobile with the inside of the foot. These motor skills are body structures that require a certain quality for their correct execution, they are characterized by being fluid, synchronous and adjustable when controlling a mobile. Ramos et al. (2023) emphasize that basic motor skills are decisive factors in the field of sports training; they need to be optimized by the coach, taking into account, among other factors, the level of development of physical qualities and, above all, the degree of control of motor skills (motor technique specific to each sport); therefore, the importance of their acquisition from an early age. The aim of the study was to implement a program based on corporeality and observe the acquisition of basic motor skills in primary school

students. The general hypothesis of the study was: the Corporeality Program influences the acquisition of basic motor skills in primary school students. The specific hypotheses were: the Corporeality Program influences the acquisition of object control and body control in primary school students.

METHODS

The research approach was quantitative, the data obtained were verified through the hypotheses and assumed theories (Hernández et al., 2014). The hypothetical-deductive method was used to establish the hypotheses that were subsequently accepted to generalize the results and, finally, verify their validity (Bernal, 2016; Yucra & Bernedo, 2020). The type of research was applied as indicated by the National Council of Science, Technology and Technological Innovation ([CONCYTEC], 2020). The level was circumscribed within explanatory research with the purpose of measuring the cause-effect relationship of the dependent and independent variables (Hernández-Sampieri & Mendoza, 2018). The research design was experimental and quasi-experimental in nature using a pre- and post-test design. The procedure was characterized by working with two non-randomized groups (intact groups). The pre-test was applied to both groups (control and experimental); then, one sample received the experimental procedure, while the other received conventional treatment. Once the experiment was concluded, the post-test was applied again to both groups (Ñaupas et al., 2018).

Variables

Independent: Corporeality Program, considered as a pedagogical space to develop in the student experiences of self-knowledge and knowledge of their actions through motor activities focused on two indicators: postural perception and perception in the regulation of mobiles. The indicators are: a) Postural perception, consisting of: body sensitivity activities, breathing, posture and muscle tension/relaxation; b) Perception in the regulation of mobiles, consisting of: mobile manipulation activities, proxemics and body rhythm (Mujica, 2021).

Dependent: basic motor skills, defined as the group of motor acts divided into “Body Control” with four tasks: balancing, rolling, jumping, running, and; “Object Control” with four tasks: throwing, catching, dribbling a ball with the hand, dribbling a ball with the foot (Herrmann & Seelig, 2020).

Sample

The participants of the convenience sample were 107 6th grade elementary school students from the city of Huanta, Ayacucho, Peru. The participating students were given a physicality program through motor tasks to acquire and improve basic motor skills; the program lasted two months, designed in 15 sessions of 90 minutes each, with a frequency of twice a week.

The inclusion criteria were:

a) Students who attended 90% of the sessions of the embodiment program.

b) Students whose parents signed informed consent to participate in the research.

Exclusion criteria:

a) Students who did not attend 20% of the sessions of the embodiment program and at the time of the study are over 12 years of age.

b) Students who have motor problems in completing the program tasks.

Instrument

The MOBAK 5-6 Battery (Herrmann & Seelig, 2020) was used, which measures two dimensions called body control and object control in schoolchildren between 11 and 12 years old, and is applied personally. In "body control", the motor skills of balancing, rolling, jumping and running are evaluated; while "Object Control" evaluates the motor skills of throwing, catching, dribbling a ball with the hand and dribbling a ball with the foot.

The score for throwing and catching skills is:

- 5-6 correct answers = 2 points.
- 3-4 correct answers = 1 point.
- 0-2 correct answers = 0 points.

Scoring for the skills of steering with foot and hand, balancing, rolling, running and jumping is:

- 2 correct answers = 2 points.
- 1 correct answer = 1 point.
- 0 correct = 0 points.

The recategorized assessment levels are:

Start = 0 points.

Process = 1 point.

Expected achievement = 2 points.

To determine reliability in a pilot group, the MOBAK 5-6 battery was applied to 25 students. The Cronbach alpha coefficient obtained a value of 0.859 for the "Object control" test and a value of 0.888 for the "body control" test, considered to have an internal consistency of "excellent" (Rodríguez-Rodríguez & Reguant-Álvarez, 2020).

Procedure

The following process followed:

- Validation and reliability analysis of the MOBACK 5-6 Battery.
- Obtain institutional authorization to develop the experimental program.
- Inform the families of schoolchildren about the procedures and duration, frequency of investigations and request informed consent.
- Apply the pretest to students from both groups.
- Apply the Corporeality program to the experimental group.
- Apply conventional curricular programming to the control group.
- Apply the post-test to students from both groups.
- Consolidate the data and empty it into the Excel program.
- Analyze the data obtained and interpret hypotheses using SPSS-26 statistical software.
- Process and interpret the findings, discussion and synthesize the conclusions and recommendations of the case.
- Write the final report.

Statistical analysis

Significance was obtained using Excel and SPSS-26; the descriptive analysis was presented using tables (frequency and percentage of the dimensions). Subsequently, the inferential analysis was performed, for which the normality of the data collected was determined through the Kolmogorov-Smirnov test because the sample was greater than 50 students; based on these results, the nonparametric Mann-Whitney U test was used.

RESULTS

Descriptive level

Figure 1 shows that in the pretest results, 52.5% of the students in the experimental group showed a starting level in basic motor skills; this result is close to that of the control group with 45.7%, which shows that both groups, control and experimental, have equivalent characteristics before the application of the program. Likewise, it is evident that after developing the Corporeidad Program, the level of basic motor skills of the students in the experimental group was significantly optimized, being 45.9% at the process level and 54.1% at the expected achievement level. On the other hand, the control group showed an improvement, being 4.3% at the starting level, 91.3% at the process level and 4.3% at the expected achievement level; consequently, these results show that the application of the Corporeidad Program significantly improves the students' basic motor skills.

Figure 1

Level of achievement of basic motor skills according to the pretest and posttest in primary school children.

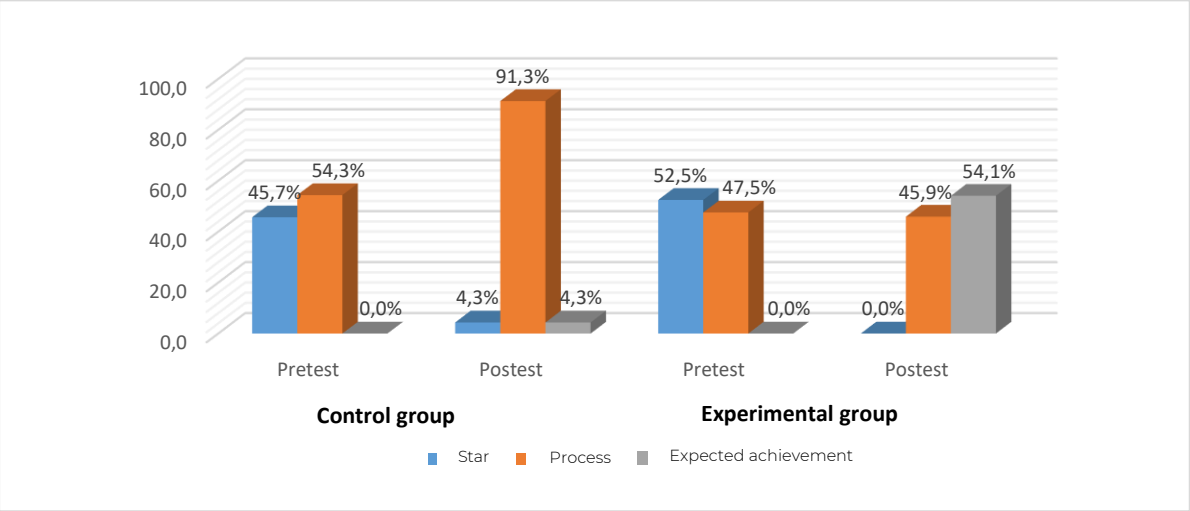


Figure 2 shows that, in the object control dimension, in the pretest, the students of the experimental group showed 34.4% at the starting level, 62.3% at the process level, and 3.3% at the expected achievement level. This result is close to the results of the control group, showing 28.3% at the starting level, 60.9% at the process level, and 10.9% at the expected achievement level; demonstrating that both groups, control and experimental, have similar attributes before the application of the program. Likewise, it is evident that after the application of the Corporeality Program, the object control dimension of the students of the experimental group progressed significantly, reaching 39.3% at the process level and 60.7% at the expected achievement level. On the other hand, the control group shows an improvement, reaching 4.3% at the starting level, 73.9% at the process level, and 21.7% at the expected achievement level. Therefore, these results show that the application of the Corporeality Program significantly improves the students' object control dimension.

Figure 2

Level of achievement of basic motor skills in the object control dimension according to the pretest and posttest in primary school students.

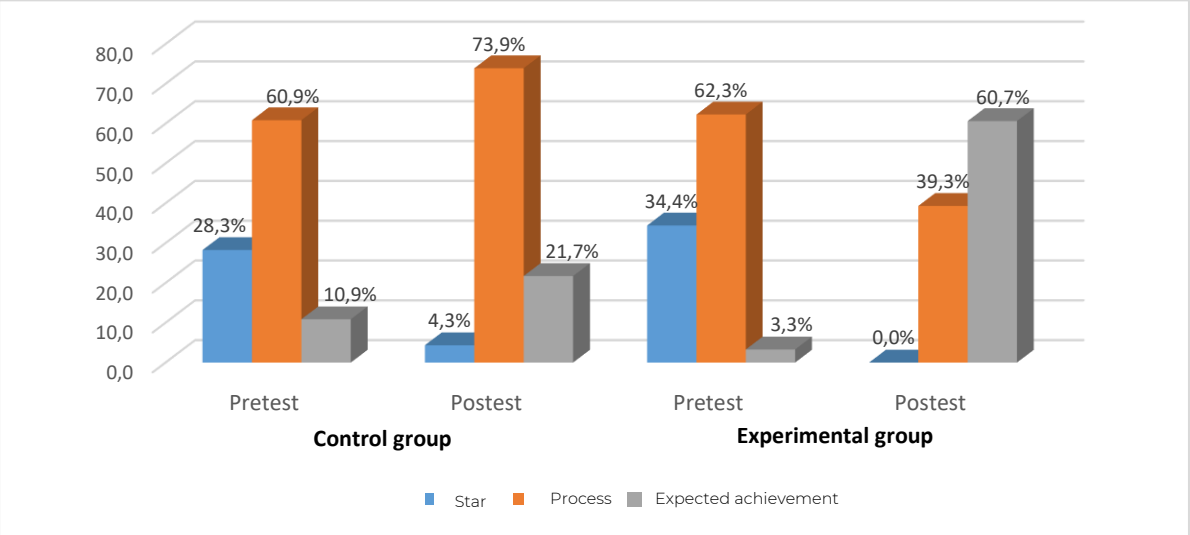
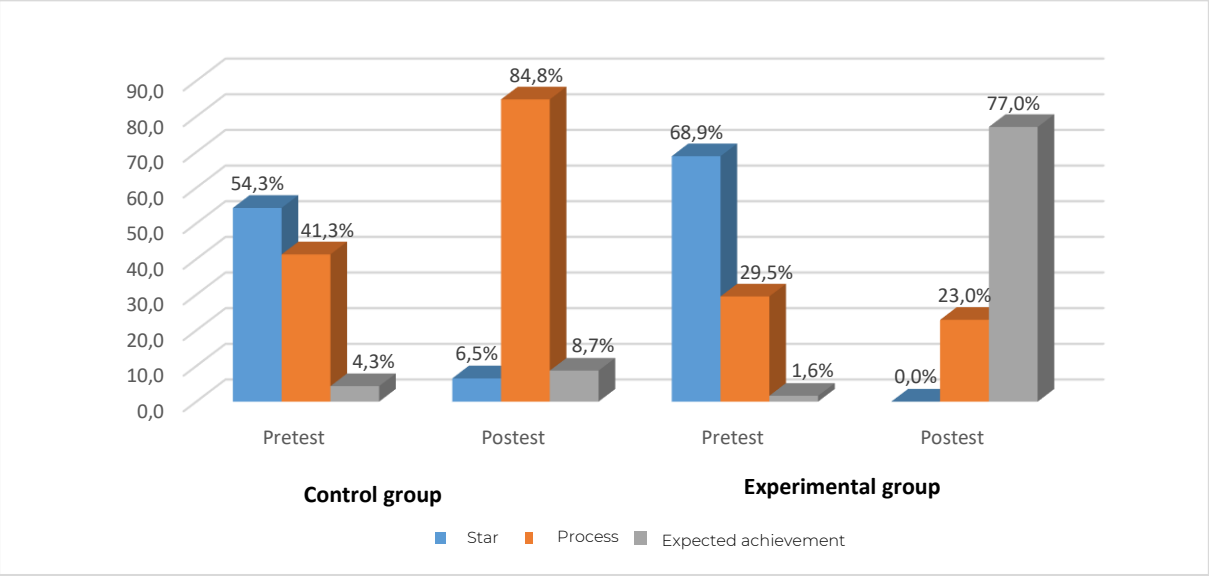


Figure 3 shows that, in the body control dimension, in the pretest, the students of the experimental group are at 68.9% at the starting level, 29.5% at the process level, and 1.6% at the expected achievement level. This result is close to the results of the control group, showing 54.3% at the starting level, 42.3% at the process level, and 4.3% at the expected achievement level; demonstrating that both groups, control and experimental, have similar attributes before the application of the program. Likewise, it is evident that after developing the Corporeality Program, the level of the body control dimension of the students of the experimental group progressed significantly, standing at 23.0% at the process level and 77.0% at the expected achievement level, on the other hand, the control group shows an improvement, standing at the starting level 6.5%, in process 84.8% and in expected achievement 8.7%; therefore, these results show that the application of the Corporeality Program significantly improves the body control dimension of the students.

Figure 3

Level of achievement of basic motor skills in the body control dimension according to the pretest and posttest in primary school children.



Inferential level

Table 1 shows that the results of both groups (control and experimental) in the pretest do not reflect significant differences in the achievement of basic motor skills (0.170 ≥ 0.05), which is supported by the fact that the results of the average range of the control group with 58.68 and the experimental group with 50.47 are similar, likewise the value of the Mann Whitney U test amounts to 1187.500. On the other hand, it was evident that both groups (control and experimental) in the post-test do reflect significant dissimilarities (0.000 < 0.05), finding that the average range of the control group is 27.51 and the experimental group is noticeably higher with 73.98, giving a value for the Mann-Whitney U test of 184,500 determining the rejection of the null hypothesis, which indicates that the application of the Corporeidad program does influence the achievement of basic motor skills of students of a public educational institution in Huanta, 2023.

Table 1

Hypothesis test of the Corporeality program for achieving basic motor skills according to the pretest and posttest in primary school students.

Phase	Group	N	Mean range	Sum of ranges	Mann-Whitney U	Sig. Asin. (bilateral)
Pretest	Control	46	58.68	2699.50	1187.500	0.170
	Experimental	61	50.47	3078.50		
Postest	Control	46	27.51	1265.50	184.500	0.000
	Experimental	61	73.98	4512.50		

Note: Information obtained from the database of basic motor skills levels.

Table 2 shows that the average range in the pretest results is 55.85 for the control group and 52.61 for the experimental group, with a value of 1318.000 in the Mann-Whitney U test, and a significance value of 0.583 (p>0.05), which indicates that before the application of the Corporeality Program, the schoolchildren in both the control and experimental groups present the same level of basic motor competence in the object control dimension. In addition, it is seen that the average range in the post-test of the control group is 34.34 and of the experimental group is 68.83, showing an increase of 34.49 in the experimental group, with a value for the Mann-Whitney U test of 498.500 and a significance of 0.000 (p <0.05), which leads to the acceptance of the alternative hypothesis, demonstrating that the application of the Corporeality Program does influence the achievement of the object control dimension of the students of a public educational institution in Huanta, 2023.

Table 2

Hypothesis test of the Corporeality program in the achievement of the object control dimension according to the pretest and posttest in primary school students.

Phase	Group	N	Mean range	Sum of ranges	Mann-Whitney U	Sig. Asin. (bilateral)
Pretest	Control	46	55.85	2569.00	1318.000	0.583
	Experimental	61	52.61	3209.00		
Postest	Control	46	34.34	1579.50	498.500	0.000
	Experimental	61	68.83	4198.50		

Note: Information obtained from the database of basic motor skills levels.

Table 3 shows that the average range in the pretest results is 59.90 for the control group and 49.5 for the experimental group, with a value of 1131.500 in the Mann-Whitney U test, and a significance value of 0.170 (p>0.05), which indicates that before the application of the Corporeality Program, schoolchildren in both the control and experimental groups present the same level of basic motor competence in the object control dimension. In addition, it is observed that the average range in the post-test of the control group is 28.05 and of the experimental group is 73.55, showing an increase of 45.5 in the experimental group, with a value for the Mann-Whitney U test of 209.500 and a significance of 0.000 (p <0.05), which leads to the acceptance of the alternative hypothesis, demonstrating that the application of the Corporeality Program does influence the achievement of the object control dimension of the students of a public educational institution in Huanta, 2023.

Table 3

Hypothesis test of the Corporeality program in the achievement of the body control dimension according to the pretest and posttest in primary school students.

Phase	Group	N	Mean range	Sum of ranges	Mann-Whitney U	Sig. Asin. (bilateral)
Pretest	Control	46	59.90	2755.50	1131.500	0.170
	Experimental	61	49.55	3022.50		
Postest	Control	46	28.05	1290.50	209.500	0.000
	Experimental	61	73.55	4487.50		

Note: Information obtained from the database of basic motor skills levels.

DISCUSSION

The results of the study show that the application of the Corporeality Program had significant effects on the achievement of basic motor skills of students. At an inferential level, using the Mann-Whitney U test, a significance of 0.000 ($p < 0.05$) was obtained, demonstrating that the program considerably influenced the acquisition of body and object control skills in schoolchildren who participated in the experiment. Studies in other samples of students have shown substantial changes; this is the case of Martínez (2018) in which the implementation of a program based on motor and play activities had significant implications on the basic motor skills of primary schoolchildren, establishing that it has a significant influence on the dimensions of locomotor, non-locomotor and projection/perception skills with a significance value of $p = 0.000 < p = 0.01$. Consequently, the contribution of the study improves the learning of basic motor skills as long as the motor learning activities are varied, motivating, playful and musical, which in addition to improving the motor aspect also help to improve their emotional control, since they feel connected in the triad: body-emotion-well-being. It could be deduced that a greater frequency of playful activities has implications in the motor acquisition of other motor skills, this phenomenon is associated with learning based on the degree of motivation and affection for the game. It is known that play is a powerful predictor of attitudinal improvement in infants.

Similarly, the research carried out by Martínez-López et al. (2021) agrees with what was found in this research, since it was shown that the age range of the sample is efficiently accommodated for the motor learning of basic motor skills, especially in object control and body control. Similarly, in the results obtained, the age of 11 to 12 years is an appropriate and highly sensitive stage for acquiring motor experiences of manipulation and control of the body in various situations. Consequently, it is similar to our research, deducing that age and the motor tasks posed are a factor closely associated with the development of motor skills in schoolchildren. Consequently, a practice started from an early age related to motor skills in their different variants, enables a greater understanding of the nature of these and their instrumentation for learning of a higher degree of complexity and, above all, a unique and diversified motor scaffolding for specific motor acquisitions. All learning of a specific technique (motor skill) requires that, previously, there exists a neuromotor regulation that enables such acquisition in an autonomous manner. In turn, the result obtained agrees with the research work of Carcamo-Oyarzun & Herrmann (2020) in which they validated the MOBAK 5 6 battery in 730 children in 5th and 6th grade of primary school, measuring two factors that correspond to the regulatory control of objects and the control of one's own body; they establish that students present low levels of motor competence. Likewise, they confirm that the MOBAK instrument is valid to measure basic motor skills at the primary level. These results are similar to what was established in the pretest application phase, where students presented a level of initiation and process. Therefore, the instrument is valid for different cultural and social realities in the school environment. The existing scientific information regarding the evaluation of basic motor skills shows that there is a considerable average of primary school children who show difficulties in managing their motor skills of their own body and regulating or manipulating objects or mobiles. This motor phenomenon is present in different cultural contexts in countries with varied body realities. Therefore, it is important to establish as a guiding thread for improving the motor skills of schoolchildren, determining in terms of levels of competence; subsequently, identifying which are the most relevant or frequent difficulties that can be associated, in general, with all schoolchildren, in order to determine similar motor patterns of the different cultural realities as a universal difficulty. Identifying

these patterns will make it possible to provide more convincing and relevant curricular content in the motor learning of schoolchildren.

The results are also similar to the study by Herrmann et al. (2019) when applying the MOBAK battery to 923 primary school children, obtaining as a result that in the locomotion factor (swinging, rolling, jumping and sideways step) and in the object control factor (throwing, catching, bouncing and dribbling) the older boys and girls obtained outstanding effects than the younger ones. When applying the post-test, likewise, the results of the students show a notable improvement, placing themselves at the expected level of achievement. This similarity could be deduced that the MOBAK Battery is an instrument in accordance with different cultural motor contexts of primary school children. The scores of each specific test of the instrument provide sufficient evidence to affirm that its application can be generalized to different ages, sex and degree of bodily availability. The MOBAK battery consistently provides the identification of motor weaknesses in schoolchildren, possibly due to the quality of the motor tasks that are directly associated with a specific form of execution, but which is a starting point for other skills. Another important element of the MOBAK Battery is that it presents a certain peculiarity in each motor task that distinguishes it from other instruments due to the ease of execution, but the concise identification of weaknesses in its execution that allows understanding a reference parameter for subsequent improvements.

Similarly, the results obtained by Carcamo-Oyarzun et al. (2020) are related and similar, demonstrating that the real motor perception program strengthens basic motor skills, since they specifically achieved greater performance in object control and greater motor control perceived by themselves. The Corporeality Program developed had as a fundamental learning element the knowledge of oneself, through motor tasks that influenced the acquisition of knowledge of the action learned, that is, a cognitive notion of one's body when executing the motor task. This strategy allowed students to improve the acquisition of basic motor skills; therefore, the similarity with the study between real motor perception and self-perception to significantly learn the basic motor skill. Studies on the neurosciences of the body have currently shown that the attentional process is related to the understanding of the nature of an action; therefore, it is deduced that, the more attention focused on a motor act, the greater the possibility of understanding and correct execution of a motor act. It could be established that a motor perception is based on a visual and proprioceptive perception, as fundamental elements for attentional improvement and motor acquisition. Similarly, the results obtained are consistent with those found by Cossio-Bolaños et al. (2021) who found that, when applying the AMPET questionnaire and the SPORTCOM Physical Test Battery in schoolchildren, they present a medium-high motor competence when they carry out activities at least once a week. It is important to highlight this aspect that the achievement of basic motor skills in the sampled students was due to the consistency and time or duration of the learning spaces; that is, twice a week with a duration of two pedagogical hours. It could be deduced that, the greater the frequency of practice, the higher the level of motor learning; it leads us to mention that the practice of body and sports activities favors the acquisition of motor competence in students. One of the principles that govern motor learning in physical education is the practice and repetition of a motor task; This principle is based on the fact that an acquisition requires constant and repetitive practice, but repetition alone is not enough; the quality of the execution must also be added, and this aspect is what determines learning in essence. Therefore, the quality of the motor task refers to the correct execution of the motor act under the premise of start-

sequence-comprehension-improvement. Singularly, this process could vary depending on many factors such as age, type of task, age of the learner, learning context, among others. Therefore, sequential practice directed by an expert is one of the bases of the success of all motor learning.

Similarly, the results are linked to what was stated by Ramírez (2016), who determined that the attention of a children's motor skills program significantly influences the acquisition of motor competence in three dimensions: corporeal internalization, body rhythm and motor skills. These conclusions are similar, since there was an improvement in the systematic balance of self-comprehension (corporeality), fluidity in body rhythm with a high degree of coordination and significant skill in motor skills for more complex learning. Consequently, a program that involves motor tasks of internalization or self-comprehension, favors motor acquisition in a notable and sustainable way. The approach to corporeality, supported by the MINEDU (2016) clearly expresses that all motor acquisition requires a set of elements that are specific to every person, such as acting, thinking, feeling, expressing and communicating as a holistic unit; Therefore, it could be established that a motor or corporality program must meet these conditions in terms of motor tasks; that is, tasks that involve cognitive processes, motor processes, volitional processes, emotional processes and problem-solving processes.

On the other hand, the results differ from those found by Cossio-Bolaños et al. (2021) who found that schoolchildren with poor motor competence have a higher BMI, waist circumference and weight index compared to those with a level of motor competence; consequently, the low motor level could have multiple causes, including reasons for inadequate strategies for teaching motor content, poor quality practice, a context or environment that does not facilitate motor learning optimally. Meanwhile, schoolchildren with greater motor competence are more fit in their physical condition and enable them to participate with ease in more complex physical activities. Therefore, the development of a program based on motor tasks of various kinds, in some way, improves the quality of learning due to its systematized nature; as the results of our study obtained. The low or high level of competence is reflected by the same teaching strategies and in the same context. It could be deduced that the difference may be due to factors of age, body experience, among other aspects.

Likewise, the results demonstrated the effective improvement of the Corporeality Program in the object control dimension in the students of the sample. This result is similar to that presented by Salvador (2021) who determined that a motor activity workshop for children strengthens fine motor skills in primary school students analyzed using the Wilcoxon test, obtaining values in the dimensions of hand dexterity (bilateral asymptotic value ,027) and in the visomotor dimension (bilateral asymptotic value of ,027); therefore, it significantly favors the strengthening of the fine motor skills of those sampled. Object control is one of the intelligences called bodily kinesthetic by Gardner (1995) and is based on the fact that most of our existence is related to the manipulation of objects or the use of hands or feet as instruments to achieve something. This manipulative action is used either as a primary or secondary need. It could be deduced that it is not limited only to the visual-motor fact, but has a broader plot as a mechanism of life and improvement of the quality of life and the activities that every person carries out on a daily basis. In the school environment, the child makes use of the distal parts of his body to communicate with others, improve his learning and, above all, understand himself. Good fine coordination is based on a better acceptance of oneself.

In the same way, the results are associated with what was stated by Bustinza (2021), who established that learning basic motor skills influences soccer techniques by correlating both variables and obtaining a value of 0.681, which indicates the existence of a highly significant correlation. From this, he concludes that the motor skills of running, jumping, rolling, throwing, receiving, among others; influence the skills of driving, controlling and receiving the ball with progressive improvement. Consequently, the application of a protocol of sequentially planned motor tasks improves the quality of more complex learning such as skills for driving with the feet. Basic motor skills, as mentioned above, are one of the pillars for learning motor techniques specific to sports, therefore, these sports techniques are acquired on the basis of basic motor skills. Therefore, it follows that initially manipulating a mobile phone will later be useful for manipulation in sports such as dribbling in basketball or volleying in volleyball. It remains to be seen that a good quality of learning basic motor skills will impact the technical quality of sports acquired later. George & González-Moreno (2020) emphasize that the practice of varied physical activities in the school environment enables a healthy lifestyle, allows a better acquisition of a variety of skills that help them achieve optimal motor performance.

Similarly, the findings obtained agree with those of Martínez-López et al. (2021) who showed that the average age of 11 to 12 years of students is efficiently accommodated for the motor learning of basic motor skills, especially in the control of objects. While, with respect to sex, male schoolchildren have greater control over objects, compared to females. These results imply that both boys and girls show different motor performances, as in the research carried out. The different scientific studies show that boys are the ones who show a greater predisposition and possibilities of acquiring motor skills more easily than girls. This situation could be established for different reasons: the frequency of practice, greater possibility on the part of boys, greater socialization or interaction between boys to share motor experiences, greater attachment to this type of experiences; a situation that does not occur among girls, being their interest in activities other than motor skills. Another important aspect is the cultural context where these skills are practiced, it could be accepted or not.

It was also possible to verify the effectiveness of the Corporeality Program in the body control dimension in the students of the sample. These results agree with those found by Sánchez-Matas et al. (2022), who when applying a motor reinforcement plan and evaluating motor competence using the Battery (MABC-2), the results express considerable improvements between pre and post in the balance dimension, hitting a fixed point (aim) and receiving a mobile (catching). It is deduced that, as long as the schoolchild's motor competence is developed, social skills must be developed at the same time through the cultivation of positive attitudes that help balance the school child's motor skills. Body control is a condition that has its basis or beginning in the perception of oneself or knowledge of oneself, therefore, from the neurosciences of the body, all body regulation or control of oneself or part of one's body arises from the interaction between brain and body; that is, the greater the knowledge of oneself, the greater the control of the parts of one's body. The corporeality program had this emphasis on demonstrating that all motor learning must start from a knowledge of one's body and how it moves in the environment where it operates; But this process of bodily self-perception is a complex activity that in children requires the application of appropriate techniques.

CONCLUSION

The application of the Corporeity Program based on perceptual motor tasks would enable an optimal acquisition and construction of basic motor skills, because they imply experiential knowledge of the motor actions that are executed, establishing a motor learning of constant recognition of strengths and weaknesses to constantly overcome.

This acquisition could be based on certain features that the program presented, such as learning specific motor tasks for postural perception (body self-knowledge) and for the perception and regulation of mobiles (quality in the execution for the manipulation and control of mobiles). Research suggests that motor tasks be presented to schoolchildren, guiding them towards the correct execution technique. The Corporeity Program was developed in 15 sessions, suggesting that the sessions have a minimum frequency of twice a week so that motor acquisitions are stable and long-lasting.

One of the strengths of the research was the impact of motor tasks on schoolchildren, especially in this there was a greater physical and emotional predisposition to assume with a better understanding and knowledge of themselves and their motor actions during the learning sessions. It is also worth highlighting the support of the parents for the novel characteristics of the program. Among the weaknesses of the study it is important to highlight the short duration of the program that made it difficult to develop more learning sessions. In the application of the Mobak battery during the pretest and posttest several collaborators are required. It is possible to continue investigating other routes such as the impact of motor competence on academic learning or self-knowledge on cognitive processes.

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