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TRAINING PROGRAM TO DEVELOP MOTOR SKILLS IN BILINGUAL CHILDREN OF A PUBLIC INSTITUTION IN THE AMAZONAS REGION IN 2025.

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ABSTRACT:
The present research aimed to implement a readiness Training program to develop motor skills in bilingual children of a public institution in the Amazonas Region in 2025. The study followed a quantitative approach with a pre-experimental design, using a single group with a pretest and posttest. The sample consisted of 17 boys and girls, and a structured observation checklist with 20 items was used as the instrument. The results showed that in the pretest, 17.6% of the students were at the initial level, while in the posttest, 70.6% reached the achieved level, indicating significant progress. It is concluded that the readiness program had a positive influence on the development of motor skills, highlighting the effectiveness of the pedagogical strategies implemented.

KEYWORDS: program, readiness, skills, gross motor, fine motor.

INTRODUCTION:

Readiness is a crucial and irreplaceable phase for the adaptation and preparation of children in physical, sensory, affective and mental aspects. It lays the foundation for their future learning and helps them find their place in school and in life. A readiness program requires the school to allow children to interact with various objects, observing, touching and manipulating them carefully, which will help them to know and name them. In this period, the most important thing is not to acquire abstract notions, but to promote the proper development of the child's organism and its social and emotional life.

According to Quiñones et al. (2020), "It is essential to highlight that the theoretical approach on which the research is based is the socio-cultural one. From Vygotsky's perspective, the learning process is obtained through social practices with others, where language and communicative interaction are crucial to share experiences and experiences. According to ESCALE data, the school dropout rate in rural areas is 1.7% in the initial level, 5.2% in PRONOEI, 3.0% in primary and 5.2% in secondary (ESCALE - Educational Statistics Unit, 2017). In these areas, females have the highest dropout rate (8.6%) compared to males (6%), according to INEI (2017).

Furthermore, as Berger and Rigal (2007) point out, child development implies a systematic progression of cognitive, motor and social skills that should be stimulated from the early educational stages.

Similarly, Albino Obregón (2015) highlights that fine motor skills training contributes significantly in the process of initiation to writing, especially in five-year-old children, since it allows the consolidation of basic skills prior to the mastery of the stroke.

Likewise, Chaves and Sanchez (2017) affirm that aprestamiento constitutes a formative stage that favors the development of logical-mathematical thinking from an early age, promoting fundamental cognitive skills.
Cedeño, Monserrate and Quiroz (2017) highlight the effectiveness of grapho-plastic techniques as a strategy to develop fine motor skills, facilitating the manipulation of objects and improving visual-motor coordination in children at the initial level.
In addition, Collas Sánchez (2018) argues that the implementation of activities aimed at the development of motor skills positively influences later academic performance, as it allows a solid foundation for learning to read and write.
From the methodological point of view, Bunge (2001) emphasizes that all scientific research must be guided by logical principles and systematic procedures, which guarantees the validity of the findings and their educational applicability.
The importance of child development is considered as a basis for understanding motor skills and readiness. García and Añes (1997) point out that child development occurs in sequential stages, where each phase involves the acquisition of new physical, cognitive and emotional skills. In the educational context, these authors emphasize that it is essential to meet the specific needs of each stage of development to promote meaningful learning, which is aligned with the application of training programs that stimulate both gross and fine motor skills.
Likewise, Gómez and Huaranga (1999) state that the development of reading and writing in children should not be understood only as an academic process, but as a psychosocial experience that involves affective, cognitive and motor dimensions. In this sense, readiness plays a fundamental role in preparing the child to successfully face these basic skills. The authors emphasize that adequate fine motor stimulation in the preschool stage allows children to acquire greater control, coordination and precision in their movements, which are essential conditions for drawing, writing and the symbolic interpretation of graphic signs.
It is important to point out the problems in our country regarding preschool children's learning: difficulties in writing and manipulation of objects; the lack of fine motor skills training can make it difficult for children to learn to write properly and to manipulate small objects with precision, which affects their development in areas such as hand-eye coordination and manual dexterity. Limitations in artistic and creative activities in which fine motor skills are essential for artistic activities such as drawing, painting, cutting and modeling. Without adequate training in this area, children may have difficulty expressing their creativity and participating fully in artistic activities. Impact on autonomy and self-care, so gross motor skills are also important for the development of autonomy and self-care in children, such as dressing, buttoning clothes, tying shoes, among other skills, so lack of training in this area may delay their ability to perform these tasks independently. Possible problems with posture and balance, where gross motor skills include jumping, running, climbing and balancing. Lack of training in these skills may contribute to posture, coordination and balance problems in children, which could affect their sports and physical activities. And also limitations in learning and active participation in the classroom. Children who have not adequately developed these skills may have difficulty performing tasks that require manipulation of materials, precise movements or physical activities in general.
It is not alien to our reality in our educational environment and especially in our Amazonas region, when students have to migrate to the primary level, where in the initial level they should have a good base to be able to develop academically in the next educational level. These are adverse situations and realities of teachers when they find their students in the first grade of primary school education, when the student has not reached their level of achievement in their fine and gross motor skills at the initial level.
All research work would have its justification in one way or another, so the proposed study would justify the reality of our students who present some difficulties in the progress of their learning reflected in the primary level when children in the early grades have difficulties even to hold the pencil, to perform their motor coordination, even in concrete operations, nothing is alien to our reality as teachers who have to seek and take hold of strategies and mechanisms to achieve in students the achievement of their skills; in addition, there is theoretical justification because in the development of the study, theories that are directly associated with the study variable are considered, which gives greater impact to the research, and furthermore, the findings will constitute a contribution to knowledge; Likewise, the study is methodologically justified, given that throughout the research process, we were guided by the guidelines of the methodology of scientific research, and the techniques and instruments respond to the stated objectives, so that based on the conclusions and results, other studies can be undertaken, taking our findings as a basis.
Taking into account this reality that is also present in the native communities of the Amazon region and especially in public institutions within the region, the following problem is posed: To what extent does the training program succeed in developing motor skills in bilingual children of public institutions in the Amazon region in 2025?
The general objective was: To apply the training program designed to comprehensively develop motor skills in bilingual children of Public Institution of the Amazonas Region in 2025. As specific objectives: a) Design and implement training programs for the development of fine and gross motor skills in 5 year old children; b) Develop gross motor skills, regarding speed in movement, precision in movements, balance in physical activities; c) Develop fine motor skills, regarding precision in drawing, dexterity in the manipulation of small objects and coordination of the senses; d) Evaluate the current level of development of gross and fine motor skills in 5 year old children.

The research allowed to investigate antecedents at international, national and local level; in which are found at international level, Bohorquez et al. (2020) conducted a research entitled Stimulation from the game for the development of gross and fine motor skills in children from 2 to 3 years of family modality of the ICBF Ositos Tabacalero 2, neighborhood the fair, Piedecuesta. Whose main objective was to develop gross and fine motor skills in children from 2 to 3 years old through early stimulation, using the game as a pedagogical tool to contribute to the development of their perceptual-motor functions, helping them to know and adapt to their physical and social environment. The inadequacy of this project arose due to the scarcity in the development of gross and fine motor skills in children, caused by the lack of interest of parents in promoting play spaces. This is due to parents' lack of knowledge about the importance of stimulation and play, prioritizing the use of cell phones to distract children. The relevance of this research reflects the innovation of the pedagogical practices implemented. The participation of the children, together with their parents, has allowed to deepen a significant learning, facilitating the treatment with new flexible didactic strategies and appropriate activities for the development of their gross and fine motor skills.

According to Álvarez (2020), part of his research work, where he analyzed the stimulation of fine motor skills using educational didactic materials in preschool children aged 4 and 5 years at the INEM Educational Institution "Lorenzo María lleras de Montería". The objective of this study is to improve the children's strokes when writing their first numbers and letters. The study is framed in a qualitative approach and uses interviews to different actors related to the institution, such as parents and teachers. Likewise, interventions were carried out to strengthen the motor skills procedure, promoting the adequate use of didactic materials to stimulate their fine motor skills through different methodological strategies, with emphasis on play and games as central axes of cognitive, social and motor progress in their infant stage. The study concludes that the accompaniment of adults and caregivers in the development of activities that incorporate play and playfulness is essential.

Miranda (2022) argues that the effectiveness of writing in students is closely linked to the variety of educational strategies provided by teachers to promote fine motor skills during the readiness stage. The correct execution of activities in this area strengthens the muscles of the hands and fingers, which prepares the student for their school learning process. The purpose of this research is to apply educational strategies that promote fine motor development in children between five and six years old from the "Centro Escolar Ecuador" who are in the first year of basic education. The study is based on a quantitative approach, with a descriptive scope and a non-experimental design. The study population consisted of seven teachers, of whom one is male and six are female. The collection of information focused on the implementation of strategies for fine motor development was carried out by means of a 10-question survey with a Likert scale addressed to the teachers of the aforementioned institution. The results show that 57% of the respondents support the creation of a manual of educational strategies for fine motor development in the training phase of children from 5 to 6 years of age. This proposal includes strategies such as cooperative learning, gamification, project-based learning and the inverted classroom, with the purpose of correcting and improving the writing errors that teachers have observed in their students.

At the national level, Gutiérrez (2023), carried out an investigation with the general objective of verifying the effect of a fine motor coordination program on the reading and writing skills of children under 5 years of age through the application of the training program. Therefore, the study was carried out with a group of 2 children, 7 girls and 18 boys, from the Tropico Huanchaco Educational Institution. A pre-experimental design was used and the instruments selected to collect the information included Lorenzo Filho's ABC test. The results showed that the fine motor combination program developed significantly improved the reading and writing skills of the 5-year-old children, with very favorable results in the experimental group.

Cayllahua (2020), conducted a research entitled: Motor skills in 5 year old children of the Educational Institution N° 235 of Cosme-Churcapa- Huancavelica, emphasizing that in the beginning of their life, part of their psychomotor development is more noticeable, which highlights the importance of periodic and systematic evaluations at this stage. This academic work was carried out in the Educational Institution N° 235 of the district of Cosme, focusing as a problem the weak development of their psychomotor skills of 5 year old girls and girls. Presenting the following objectives, by identifying the level of development of motor skills in 5 year old children, so, framed in a mixed approach, qualitative and quantitative, the same that is descriptive type with a simple descriptive design. Taking into account its evaluation process, techniques and instruments such as observation cards and a checklist were used. At the same time, the study population consisted of a total of 34 children between boys and girls of the second cycle of basic education, with a sample consisting of 20 children selected in a premeditated manner. The results indicated that, in terms of motor development, most of the preschool children were at a regular level.

Quispe (2021) conducted a research to address the problem posed in the question: how do school readiness activities influence the autonomous development of five-year-old children in the Initial Educational Institution N° 312 of Silvia, Ayacucho 2021. Its general objective was based on determining the influence of school readiness activities on the autonomous development of five-year-old children. As part of the methodology used, it was quantitative, with an explanatory level and a pre-experimental and longitudinal design, with a sample of 19 five-year-old preschool students. Likewise, the instrument used to collect data was an observation guide, validated and reliable. To analyze the results of the general hypothesis, the T-Student statistic was used, obtaining a correlation coefficient of 0.703. However, it is concluded that there is a significant influence of the activities of school

readiness in the autonomous development of five-year-old children of the Institución Educativa Inicial N° 312 de Silvia, Ayacucho 2021.

At the regional level, Zuloeta (2021), conducted a research with the purpose of proposing a model of plastic expression to improve fine motor skills in 4 and 5 year old children of the Institución Educativa Inicial N° 165 "Angel" de collud-Pomalca. This study is framed in a non-experimental quantitative approach of transversal cut, with an explanatory level and also with its propositional research design. To collect information, a questionnaire and an observation sheet focused on the fine motor variable were used as part of the instrument, applied to a sample of 22 children between 4 and 5 years of age. The results showed that the majority of the children were at an initial level of 63.54%. This evidenced the problems in the progress of fine motor skills, which led to the elaboration of the proposal of plastic expression. The proposal was validated through the criterion of expert judgment, who confirmed both its design and applicability.

In the theoretical foundation of the research, some theories were considered, the same theories that support this study, such as: The definition of training as a set of curricular activities constituted to favor the maturity of functions necessary for learning, this implies several statements within them implicit.

As a first aspect, the type of initial preparation varies according to the type of learning to which it is oriented. For example, in the case of literacy, the content of the training will be notably different depending on the method used (analytical or synthetic) or the writing style introduced from the beginning (linked or scrip). Secondly, training objectives focus on the development of functions rather than on specific knowledge or skills. Most readiness programs focus on fostering the following skills: body awareness, spatial organization, time orientation, sensory discrimination, motor skills, memory and attention, classification and seriation, language, and social integration. In addition, the training ends when it is established that students have reached the desired level of maturity. In summary, the duration of the training is adjusted to the progress of the students and does not depend on teacher decisions, directives from the authorities or pressure from parents.

There are several types of readiness that require observing different behaviors related to the mental, social and psychological changes and reactions that the child feels throughout the process of biological development towards adulthood. The investigation of the child's behavior is crucial for the teacher to be able to diagnose his or her readiness. Specific techniques for this observation include physical readiness, mental readiness, social-emotional readiness, and psychological readiness. a) Physical readiness involves observing all aspects of the child's vision, hearing, and motor coordination. For example, it is observed if the child rubs his eyes repeatedly or holds objects in unusual positions. It is also considered whether the child complains of head complaints, whether the child follows commands without repeating them, and whether the child responds appropriately to games that involve discriminating sounds accurately, especially when corrected. In addition, we observe whether the child fatigues easily, is susceptible to illness, obfuscates easily, and has difficulty maintaining balance. Other aspects include the ease with which the child dresses or undresses, eye-hand coordination when using tools or playing with a ball. b) Mental readiness involves observing the child's mental habits and maturity. For example, it is observed if the child can reason his opinions concerning his own activity and conjecture about others. It is also assessed whether the child can memorize a poem or a song of short duration, perhaps tell a story in correct sequence, and express stories or tales through rhythms and dramatizations. In addition, we consider whether the child can interpret pictures and understand that symbols can be associated with objects and situations. It is observed if the child recognizes similarities and differences in a story, remembering the central theme and some important scenes. c) Social-emotional readiness, involves observing some details with the child's cooperation, independence, sharing skills, listening and adaptability. As a model we observe if the child cooperates in games involving several children and if he/she pays attention during these activities. We also assess whether the child listens with pleasure to complete stories and is able to retell them afterwards, whether he/she can listen to others without interrupting and whether he/she can follow two- or three-step commands in the correct alignment. In addition, we consider whether the child shows initiative in starting and completing tasks such as drawing or preparing for an activity without becoming bored. d) Psychological readiness involves looking at aspects of the child's mental readiness and language development. For example, we observe if the child is already able to read a book, if he asks questions about signs and words, and if he shows interest in identifying words or if he forms words creatively. e) The psychomotor readiness aspect refers to the development that occurs rapidly in the first 5 years of his existence. This development corresponds to the acquisition of skills that increase in complexity, progressively integrating from basic psychophysiological functions to more advanced psychosocial interactions. At each scale, disorders or disturbances at lower levels can affect higher levels, and vice versa under certain conditions. These observations show that behaviors affect the whole person, who feels, perceives, learns, retains, thinks and acts as a whole. Therefore, it is essential to organize the training in a technical manner, specifying the functions of each of the areas that make up the psychomotor aspect of the student.

Gross motor skills - According to Barrocal Canchari (2022), gross motor skills indicate the group of nervous and muscular systems allowing mobility and coordination of the limbs, as well as movement and translation in general. Movements are executed through the shrinking and resting of different sets of muscles. During these processes, sensory receptors located in the skin come into play, as well as proprioceptive receptors present in the muscles and tendons. These receptors transmit information to the nerve axes, indicating whether the movement is being performed correctly or if it needs to be adjusted.

According to De la Oz (2022), preschool activities provide children with experiences that build their confidence and self-esteem. A good preschool facilitates learning by doing, stimulating the senses through art, music, and tactile materials such as clay, water, and wood. In addition, it promotes skills such as observation, conversation, creativity and problem solving through storytelling, dramatic play, conversation and pre-writing activities, preparing children for the pre-literacy stages. It also teaches social skills such as relating to others, fostering collaboration, negotiation, compromise and self-control, using language effectively from an ontological perspective (Soto, 2017). One of the most important achievements of preschool is to make children perceive school as a fun place, learning as satisfying and feeling competent, all through didactic play that facilitates harmonious transitions.

From a broader pedagogical perspective, Nassif (1980) argues that contemporary education should respond to the integral needs of the child, considering its biological, psychological and social dimensions . Within this framework, the author emphasizes that pedagogical practices, such as apprenticeship, should be oriented not only to academic preparation, but also to the harmonious development of the child as a human being. This vision reinforces the need to implement didactic strategies that address motor skills from an integral conception of learning, as proposed in this study.

In the child's development, motor skills play a crucial role, as he or she goes through various phases from uncontrolled and spontaneous movement to mental graphing ability. This implies a progress from initial disorganization to a more complete organization, where emotion-driven action gradually evolves into thought-guided actions. For some authors argue that motricity is not limited to the description of motor behaviors and how they are transformed, but also encompasses the underlying processes that support changes in those behaviors.

Fine Motor - What you describe refers to the movement of the hands and fingers with high precision and coordination. These movements are more detailed and precise than those of gross motor skills, since they involve muscle control, patience and judgment to carry out specific manual actions. Fine motor skills are manifested in some procedures, methods, techniques, rules, especially in the forms that facilitate the execution of learning actions and other activities.

Fine motor skills, according to Ccora et al. (2020), refer to the development of small muscle movements that enable children to perform detailed tasks such as sewing, drawing, coloring, knitting and stringing small objects on threads. These movements involve the development of specific muscles needed for activities that require precision and safety, as well as eye movement coordination. Mesonero (1995, p. 45) conceptualizes fine motor skills as movements that demand high precision and advanced coordination (p. 48). Rodriguez (2012, p. 22) describes it as the ability to use fingers and hands to manipulate objects, create new shapes, and perfect manual skills.

Visual-hand coordination refers to the infant's skill in mastering the use of his or her hands in the execution of specific tasks, based on visual stimuli that are captured, processed and organized in the brain. It is the ability to coordinate what is evidently the precision of the fingers and hands, which is essential to exercise when writing, painting, drawing, cutting or manipulating objects with absolute precision.

Phonetic coordination is considered in the child's ability to articulate and produce speech sounds in a precise and coordinated manner. It is fundamental to stimulate and develop activities related to language, ensuring an adequate mastery of pronunciation and articulation of words and sounds.

Gestural coordination refers to the child's ability to coordinate the movements of each of his or her fingers, as well as all of them together in specific activities. According to Mesonero (1994), this type of coordination develops gradually, and children can reach a safe level in this skill by the age of 10 years.

Facial coordination considers that the child is able to control facial muscle movements, both voluntary and involuntary, in relation to visual-manual actions and social interaction. According to Mesonero (1994), this skill involves mastering facial gestures that facilitate communication and emotional expression in interaction with other people.

Pre-writing is defined as a conjugated sequence of activities and exercises designed in the learning of writing as part of its initial preparation phase. These activities include manipulative training such as poking, prodding and sticking drawings, playing with play dough, pieces of paper, among others. The purpose of pre-writing is to develop fine motor skills, visual-motor coordination, and skills necessary to properly hold and manipulate a pencil or pen at the time of beginning to learn to write.

METHODS AND METHODOLOGY

Type of research

The research was framed within a quantitative approach, with a pre-experimental design, using a single study group with measurements before and after the intervention. Pretest and posttest tests were applied to evaluate the impact of the training program on the development of motor skills.

Research design

This design adopts a pre-experimental modality in the pre-experimental phase, using pretests and posttests with a single group (Hernandez, et al. 2014).

Ge. O1 X → O2 →

Variable	D. conceptual	D. Operational	Dimensions	Indicators	Items	Scale	Instrument
V1: Preparation	The readiness is a process of preparation for any activity that one wants to start, it is permanent in the whole life of the human being, because it requires the emotional, social, intellectual, physical and expressive preparation of the children to the school environment. school environment	For the preparation different activities will be used in the form of workshops using different materials according to the program.	School readiness	Importance	Do they correctly identify the characteristics of symbols or objects? Do they have good hand-eye coordination? Do they use a pencil correctly?	1: Very low level of development 2: Low level of development 3: Medium level of development 4: Good level of development 5: Excellent level of development	Observation sheet
			Processes	- Pre-reading - Pre-writing - Fine and gross motor exercises.			
			Functional:	Cognitive Expressive Social Intellectual and Physical			
			School Environment	Adaptation			

Thus:
Ge : Experimental Group
O1 : Pretest
O2 : Posttest
X : Stimulus (Learning project)

Population, sample and sampling

The population consisted of five-year-old students of an initial public educational institution in the Amazon region. The sample was non-probabilistic, by convenience, and included 17 students (9 girls and 8 boys), selected from a single section.

Table 1 Distribution of the students of the Initial Public Educational Institution, Amazonas Region.

Students	Sex	Number
Single Section	Females	9
	Males	8
	Total	17

Note: Extracted from the 2025 Enrollment Rosters.

The sample is characterized as a subset of the selection of the population, i.e. a part or portion taken from the population, based on similarity criteria (Mejía, 2008, p. 62).

Sampling

The non-probabilistic method, also called convenience sampling, was used for the sample selection.

Study variable

Variable 1: Apprehension
Variable 2: Gross and fine motor skills

Operationalization of Variable 2

Variable	D. conceptual	D. Operational	Dimensions	Indicators	Items	Scale	Instrument
V2: Motor skills	Fine Motor is the specific movement of the muscles of the hand and fingers. Gross Motor is the motor area of the body through the movement of muscles and gross parts of the body such as: head, trunk, legs, feet, hands, mouth, nose. Chavez (2011)	The motor activities differ in the body position and the spatial situation of the students during their motor performance, in the level of execution of the movements and in their speed; therefore, different materials will be used in each activity or workshop.	Gross motor skills	- Movement speed - Accuracy in movements - Balance in physical activities	1, 2, 3, 4, 5, 6, 7, 8	1: Very low level of development 2: Low level of development 3: Medium level of development 4: Good level of development 5: Excellent level of development	Observation sheet
			Fine motor skills	- Accuracy in drawing - Dexterity in manipulating small objects - Hand-eye coordination in detailed activities	9, 10, 11, 12, 13, 14, 15, 16		
			Integrated motor skills	Allows assessment of the progress and impact of coaching on motor skill development in 5-year-old children.	17, 18,19,20		

2.2. Methods, Techniques and Instruments for Data Collection and Procedures

METHOD

The analytical method and the synthetic method were used, as indicated by Esteban (2018), the former provides the ability to break down the essential components of a phenomenon or problem, which facilitates the detailed understanding of each element. On the other hand, the synthetic method facilitates the synthesis of these details to form a coherent overview. This combination allows both the deepening of specific aspects and global understanding.

Technique

It is understood as the procedure used for the achievement of objectives (Hernández, 2018), for such a case, the technique of observation will be used, since it is required to obtain direct and detailed data on behaviors and phenomena in their natural context. It also allows Providing a unique perspective that complements other data collection methods, thus contributing to a more complete and analytical study of the subject to be addressed.

Instrument

The instruments used in this research were an observation sheet, distributed in 20 items for the variable gross and fine motor skills, divided into its dimensions, in a Likert-type grade, and for the readiness variable, a checklist will be used as a tool to verify the progress processes of the infants, favoring the development of their motor skills.

Procedure and data presentation

Two instruments were used for data collection: an observation sheet with a five-level Likert-type scale to evaluate gross and fine motor skills, and a checklist to record progress related to readiness. The observation card was composed of 20 items distributed in three dimensions: gross motor, fine motor and motor integration. Both instruments were reviewed by expert judgment.

Analytical and synthetic methods were applied for data processing and interpretation. Direct observation was used as the main technique, considering the natural context of the classroom. For statistical analysis, descriptive statistics (frequencies and percentages) and inferential statistics were used, with SPSS v.27 and Excel 2019.

In addition, the Shapiro-Wilk normality test was applied to determine the distribution of the data, and subsequently the Wilcoxon rank test was used to contrast the hypotheses, due to the non-parametric nature of the data.

Hypotheses

General Hypothesis

The training program helps to develop motor skills in 5 year old children of a Public Initial Educational Institution in the Amazonas Region.

Specific Hypothesis

The training program helps to develop gross motor skills, with respect to speed in movement, precision in movements, balance in physical activities.

The training program helps to develop fine motor skills, regarding accuracy in drawing, dexterity in the manipulation of small objects and coordination of the senses.

RESULTS

This section presents the results obtained from the application of the pretest and posttest, in order to evaluate the effect of the training program on the development of motor skills in five year old children of the Institución Educativa Inicial publica in the Amazonas region. The results were statistically processed and are presented in tables and figures with their respective descriptions.

Table 2 Level of development in motor skills evaluated in the pretest and posttest in the dimension "gross motor skills" of 5 year old children of a Public Initial Educational Institution in the Amazonas region, 2025.

Level	Dimension: Gross Motor Skills			
	Pretest		Posttest	
	Frequency	Percentage	Frequency	Percentage
Start	3	17,6	0	0
Process	14	82,4	4	23,5
Achieved	0	0,0	13	76,5

Total	17	100,0	17	100,0

According to the data presented in Table 2, in the pretest it was observed that 17.6% of the students were at the initial development level, while 82.4% were in process, with no students at the achieved level. Subsequently, in the posttest, 76.5% reached the achieved level, 23.5% remained in process and none at the initial level, which evidences a significant improvement attributed to the pedagogical intervention.
This significant progress can be attributed to the implementation of educational workshops that were developed through learning sessions specifically designed to strengthen gross motor skills, highlighting the effectiveness of these pedagogical strategies in child development.

Figure 1 Representation in percentages of the level of development in motor skills evaluated in the pretest and posttest in the dimension "gross motor skills" of 5 year old children of a Public Initial Educational Institution in the Amazonas region, 2025.

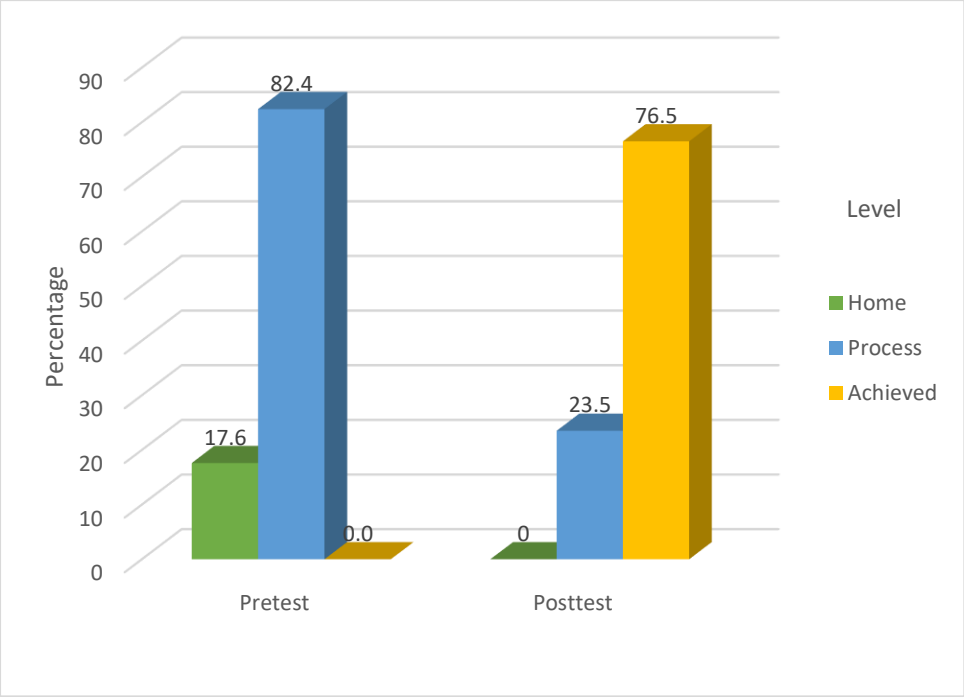


Table 3 Evaluation of the development of motor skills evaluated in the pretest and posttest in the dimension "fine motor skills" of 5 year old children of a Public Initial Educational Institution in the Amazonas region, 2025.

Level	**Dimension: Fine Motor Skills**			
	Pretest		**Posttest**	
	Frequency	Percentage	Frequency	Percentage
Start	3	17,6	0	0
Process	14	82,4	5	29,4
Achieved	0	0,0	12	70,6
Total	17	100,0	17	100,0

As shown in Table 3, in the pretest 17.6% of the students were at the initial level and 82.4% were in the process, with no presence at the achieved level. In the posttest, 70.6% reached the achieved level and 29.4% remained in process. These results reflect significant progress in the fine motor skills dimension.
Consequently, this progress reflects a substantial improvement in the development of fine motor skills and can be attributed to the effective implementation of specific pedagogical strategies during the learning sessions. These strategies likely included structured and targeted activities aimed at strengthening motor coordination and precision, underscoring the importance of an intentional educational approach tailored to the needs of child development.

Figure 2 Percentage representation of the results obtained in the evaluation of the development of motor skills assessed in the pretest and posttest in the dimension "fine motor skills" of 5-year-old children of a Public Initial Educational Institution in the Amazonas region, 2025.

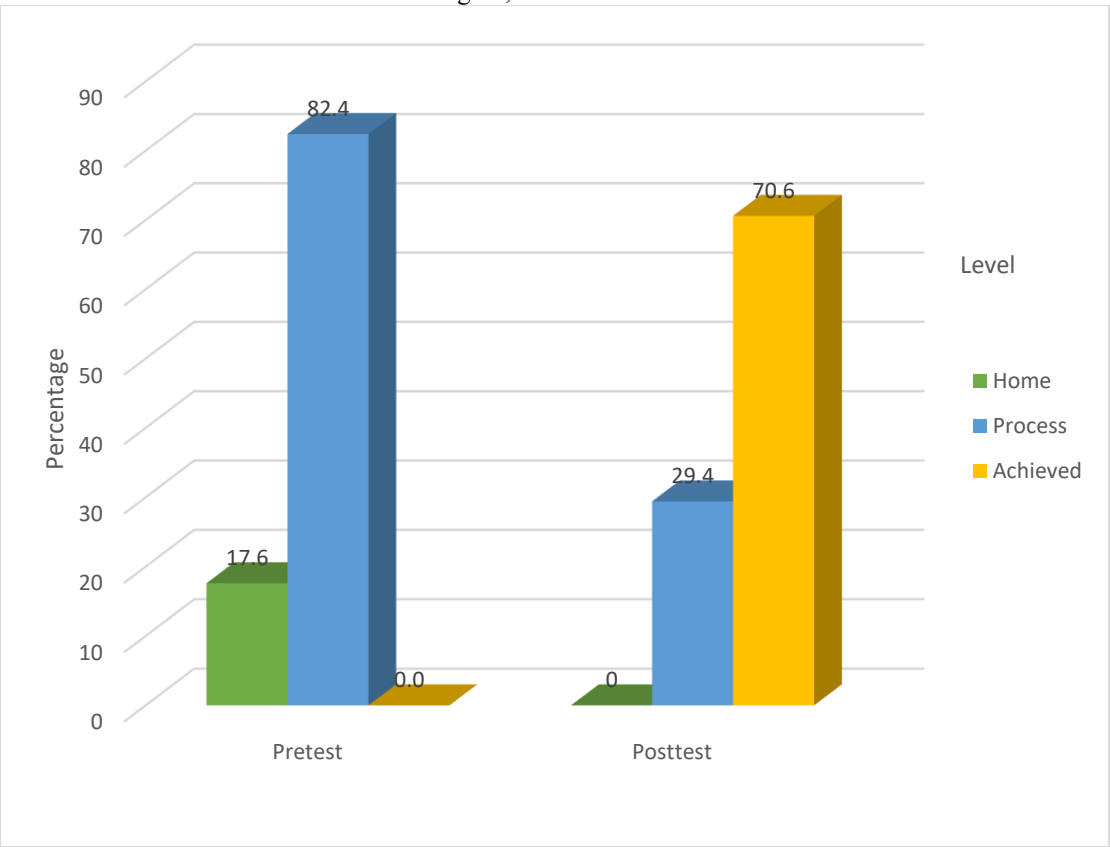


Table 4 Analysis of the development of motor skills evaluated in the pretest and posttest in the dimension "integrated gross and fine motor skills" of 5 year old children of a Public Initial Educational Institution in the Amazonas region, 2025.

Level	**Dimension: Integrated Gross and Fine Motor Skills**			
	Pretest		**Posttest**	
	Frequency	Percentage	Frequency	Percentage
Start	7	41,2	0	0
Process	10	58,8	11	64,7
Achieved	0	0,0	6	35,3
Total	17	100,0	17	100,0

Table 4 shows that, during the pretest, 41.2% of the children were at the initial level and 58.8% were in the process. In the posttest, 64.7% were in the process and 35.3% achieved the highest level, with no records in the initial level. This shows a general improvement in integrated motor development after the intervention.
Also, these resources appear to have facilitated a more interactive and effective educational experience, fostering the simultaneous development of gross and fine motor skills in students, and highlighting the importance of integrated methodological approaches in early education.

Figure 3 Percentage of development of motor skills evaluated in the pretest and posttest in the dimension "integrated gross and fine motor skills" of 5-year-old children of I.E.I Nº312, Alto Mayo, Riojas, San Martín, 2024.

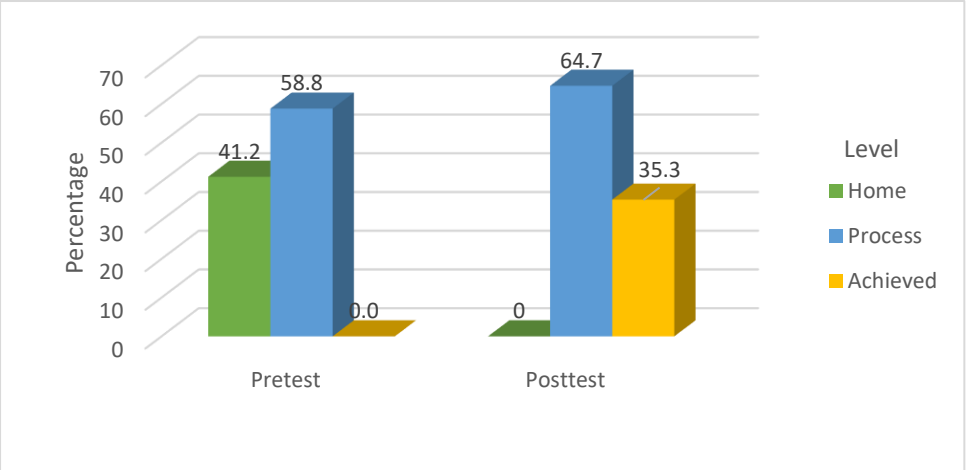


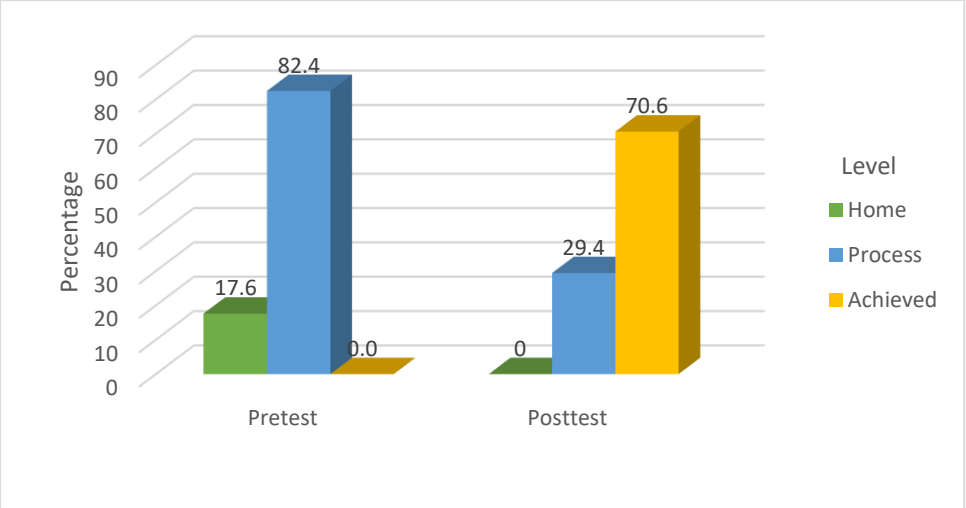
Table 5 Level of development in the pretest and posttest on the variable "motor skills" in 5 year old children of a Public Initial Educational Institution in the Amazonas region, 2025.

Level	Variable: Motor skills			
	Pretest		Posttest	
	Frequency	Percentage	Frequency	Percentage
Start	3	17,6	0	0
Process	14	82,4	5	29,4
Achieved	0	0,0	12	70,6
Total	17	100,0	17	100,0

Table 5 shows that, in the pretest, 17.6% of the children were at the initial level and 82.4% were in process, with no students at the achieved level. After the intervention, 70.6% achieved the highest level, while 29.4% remained in process. This progress confirms the effectiveness of the program applied.

It is deduced that this remarkable progress can be attributed to the implementation of a training program specifically designed to strengthen motor skills in early childhood. Also, by being focused on structured and progressive activities, which promoted a comprehensive improvement in motor skills, highlighting the importance of personalized educational approaches focused on the integral development of children.

Figure 4 Percentage distribution of the level of development in the pretest and posttest on the variable "motor skills" in 5-year-old children of a Public Initial Educational Institution in the Amazonas region, 2025.



Normality test

The normality of the data was evaluated using the Kolmogorov-Smirnov and Shapiro-Wilk tests. The results are presented in Table 6.
Ho: The data of the variable "motor skills", of the dimension "gross motor skills" and "fine motor skills" come from a normal distribution.
Ha: The data of the variable "motor skills", of the dimension "gross motor skills" and "fine motor skills" come from a non-normal distribution.

Table 6 Normality test of the variable "motor skills", dimension "gross motor skills" and "fine motor skills" at pretest and posttest

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
Difference	Statistic	gl	Sig.	Statistic	gl	Sig.
Motor skills	0,317	17	0,000	0,782	17	0,001
gross motor skills	0,271	17	0,002	0,812	17	0,003
Fine motor skills	0,276	17	0,001	0,838	17	0,007

a. Lilliefors Significance Correction

According to the results presented in Table 6, the Shapiro-Wilk statistic shows significance values lower than 0.05 in both pretest and posttest, which allows us to accept the alternative hypothesis. This confirms that the data for the variable "motor skills", as well as for the dimensions "gross motor skills" and "fine motor skills" conform to a non-normal distribution. Therefore, this finding is determinant for the analysis, since it enables the use of nonparametric tests in the evaluation of general hypotheses and specific hypotheses by means of the Wilcoxon rank test statistic.

Hypothesis Testing
The nonparametric Wilcoxon signed-rank test was used to compare the pretest and posttest results for the motor skills variable. The general hypothesis stated that the training program helps to develop motor skills in children.

General Hypothesis: The training program helps to develop motor skills in 5 year old children of a Public Initial Educational Institution in the Amazonas region, 2025.

Table 7 Wilconxon rank test statistic of the variable "motor skills".

	POSTTEST - PRETEST
Z	-3,637[b]
Sig. asin. (bilateral)	,000

a. Wilcoxon signed-rank test

b. Based on negative ranges.

According to Table 7, the Wilcoxon test result shows a significance value of 0.000 (< 0.05), which allows rejecting the null hypothesis and accepting the alternative hypothesis. It is concluded that the training program had a significant effect on the development of motor skills.
Therefore, we can affirm that the application of the training program helps to significantly develop motor skills in 5 year old children of a Public Initial Educational Institution in the Amazonas region, 2025.

Specific hypothesis 1: The training program contributes to the development of gross motor skills, such as speed in movement, precision in movements and balance in physical activities.

Table 8 Wilcoxon rank test statistic of the variable "gross motor skills".

	POSTTEST - PRETEST
Z	-3,652[b]
Sig. asin. (bilateral)	,000

a. Wilcoxon signed-rank test

b. Based on negative ranges.

According to Table 8, it is observed that the significance level is less than 0.05, which indicates a significant variation in the level of development of the dimension "gross motor skills" in 5 year old children of a Public Initial Educational Institution in the Amazonas region, 2025.between the pretest and the posttest.
Therefore, we can affirm that the application of the training program helps to significantly develop gross motor skills, with respect to speed in movement, precision in movements, balance in physical activities.

Specific hypothesis 2: The training program also positively influences the development of fine motor skills, such as precision in drawing, manipulation of small objects and sensory coordination.

Table 9 Wilcoxon rank test statistic of the dimension "fine motor skills".

	POSTTEST - PRETEST
Z	-3,652[b]
Sig. asin. (bilateral)	,000

a. Wilcoxon signed-rank test

b. Based on negative ranges.

According to Table 9, it is observed that the level of significance is less than 0.05, which indicates a significant variation in the level of development of the dimension "fine motor skills" in 5 year old children of a Public Initial Educational Institution in the Amazonas region, 2025. Between pretest and posttest.
Therefore, we can affirm that the application of the training program helps to significantly develop fine motor skills, regarding precision in drawing, dexterity in the manipulation of small objects and coordination of the senses.

DISCUSSION

The results obtained from the application of the training program in five year old children of a Public Initial Educational Institution in the Amazonas region, show a positive and significant impact on the development of their motor skills. What was most revealing was to observe how, after the intervention, none of the students remained in the initial level. Instead, the vast majority were able to advance to higher levels of performance. This improvement not only confirms the validity of the program implemented, but also demonstrates the potential of active and child-centered methodologies to transform learning processes in early childhood.
This concrete experience is consistent with the findings of previous studies. Bohorquez and Sequeda (2020), for example, demonstrated that play can be a powerful tool for perceptual-motor stimulation when used intentionally by the teacher. In our research, it was precisely the use of playful activities, structured and designed from the real needs of the students, which generated a positive response in their motor development. Similarly, Domínguez

Córdova (2021) showed how the game adapted to the child context favors the strengthening of fine psychomotor skills, highlighting the importance of planning with pedagogical and affective sense.
Regarding the development of gross motor skills, the results obtained show a substantial improvement: from 17.6 % at the initial level, 76.5 % of students reached the achieved level. This progress is consistent with Cayllahua (2020), who highlights the importance of systematic motor stimulation from the first years of life. In our case, workshops were designed that included activities such as movement, balance games and coordinated movements, which not only promoted the physical development of the children, but also their confidence, self-esteem and autonomy.
Regarding fine motor skills, the impact was equally significant. Seventy.6% of the students achieved the highest level in this dimension at the end of the intervention. This achievement is especially relevant if we consider that children often reach the writing stage without having developed the necessary manual control to face pencil and paper. In this sense, the use of didactic materials, the manipulation of small objects and tracing activities were fundamental. This result coincides with the research of Alvarez (2020), who points out that fine stimulation through play enhances graphic development, and Miranda (2022), , who argues that intentional planning strengthens hand muscles, preparing students for the school challenges to come.
In the integrated dimension - which articulates gross and fine skills - significant progress was also evident. Before the program, 41.2 % of the children were at the initial level, while at the end of the program, this group disappeared completely, and 35.3 % reached the achieved level. This type of integration is essential for the overall development of the child, as it reflects the ability to coordinate different body functions in a single action. This coincides with Quispe (2021), who showed that preparatory activities not only develop motor skills, but also enhance children's autonomy, a key aspect for a successful transition to the primary level.
Likewise, the contributions of Magaña, De los Ángeles and Pineda (2003) enrich the theoretical reflection by pointing out that the development of fine motor skills through readiness has a direct relationship with the initial processes of reading and writing. This connection allows us to project that students who benefit from this type of program are better prepared to face the academic challenges of the next level, reducing possible frustrations and lags.
From a more pedagogical point of view, the findings allow us to reaffirm the importance of promoting educational practices that consider childhood as a stage of opportunities, where every game, every movement, every stroke is a possibility for learning. Motor skills are not an isolated element, but a bridge to expression, thought, communication and the construction of identity. This is what Barrocal Canchari (2022) and Ccora et al. (2020) state when they affirm that both gross and fine motor skills are pillars for the integral development of children.
Finally, it should be noted that this research not only validates a set of pedagogical strategies, but also leaves an invitation to continue working for a more conscious education, respectful of children's rhythm, and based on play, emotion and interaction. Early schools should be spaces where children develop freely, joyfully and with purpose. Well-planned and implemented, early learning can be the first step that encourages them to unfold their full potential.

CONCLUSION

The application of the training program allowed the integral development of gross and fine motor skills in five year old children of a Public Initial Educational Institution in the Amazonas Region. The post-test analysis showed that 70.6% of the students reached the achieved level and no child remained at the initial level. The Wilcoxon test indicated a statistically significant difference ($p < .05$) between pretest and posttest, confirming the effectiveness of the program.
The program was designed and implemented with planned and progressive activities aimed at the development of gross and fine motor skills**,** which allowed for a structured intervention adapted to the level of **the children**. This made it possible to comprehensively address both dimensions of motor development.
Regarding gross motor skills, a significant improvement was observed: 76.5 % of the students reached the level achieved in the posttest**.** This progress was associated with activities aimed at displacement, precision and balance. These findings coincide with Cayllahua (2020), who states that systematic motor practice favors psychomotor development.
Regarding fine motor skills, 70.6% of the children reached the level achieved at the end of the intervention. Activities focused on tracing, manipulation and coordination of the senses contributed to the observed progress, in line with the contributions of Alvarez (2020) and Miranda (2022).
The initial diagnostic evaluation identified that most of the children were at initial levels or in process, thus justifying the implementation of the program. Subsequent evaluation showed improvements in all indicators observed, demonstrating the positive impact of the program.

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