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Original article

Methodology for the development of agility through motor skills in preschool children

[*Metodología para el desarrollo de la agilidad mediante las habilidades motrices en niños de preescolar*]

[*Metodologia para o desenvolvimento da agilidade por meio de habilidades motoras em crianças pré-escolares*]

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ABSTRACT

Introduction: The education and development of motor skills as a dimension within the educational process aims to achieve significant changes in the development of motor skills that promote agility in preschool children. Therefore, this research focused on revealing the results of a methodology for developing agility through the combination of throwing, catching, running, and jumping motor skills in preschool children.

Objective: To design a methodology that provides a foundation for developing agility through the combination of motor skills such as throwing, catching, running, and jumping in preschool children**.**

Materials and methods: A pre-experimental study was conducted. The sample was selected using purposive, non-probabilistic sampling. Twenty preschool children were selected, all of whom met the inclusion, exclusion, and withdrawal criteria. Methods from both theoretical and empirical levels were employed, including analysis and synthesis, inductive-deductive reasoning, systemic-structural-functional analysis, document analysis, observation, interviews, and surveys.

Results: The methodology involved the application of playful motor activities based on a combination of motor skills such as throwing, catching, running, and jumping. Twenty preschool children participated; 100% improved their agility through the combination of these skills.

Conclusions: Playful motor actions applied through the combination of motor skills of throwing, catching, running and jumping showed a significant improvement in the development of agility.

Keywords: agility; motor skills; preschool.

RESUMEN

Introducción: la educación y desarrollo de la motricidad como dimensión dentro del proceso educativo tiene como objetivo lograr cambios significativos en el desarrollo de habilidades motrices que favorezcan el progreso de la agilidad en niños de preescolar.

De ahí que esta investigación estuviera centralizada en revelar los resultados de una metodología para el desarrollo de la agilidad mediante la combinación de habilidades motrices de lanzar, atrapar, correr y saltar en niños de preescolar

Objetivo: diseñar una metodología que fundamente el trabajo para el desarrollo de la agilidad mediante la combinación de habilidades motrices de lanzar, atrapar, correr y saltar en niños de preescolar**.**

Materiales y métodos: se realizó un estudio preexperimental; la muestra seleccionada se realizó a partir de un muestreo intencional, no probabilístico; se seleccionaron 20 niños de preescolar, los cuales cumplieron con los criterios de inclusión, exclusión y salida. También se emplearon métodos de los niveles teórico y empírico, entre los que destacan análisis y síntesis, inductivo-deductivo, sistémico-estructural-funcional, análisis documental, observación, entrevista y encuesta.

Resultados: la metodología se realizó mediante la aplicación de acciones motrices lúdicas sustentadas en la combinación de habilidades motrices de lanzar, atrapar, correr y saltar. Participaron 20 niños de preescolar; el 100 % mejoró la agilidad mediante la combinación de estas habilidades.

Conclusiones: las acciones motrices lúdicas aplicadas mediante la combinación de habilidades motrices de lanzar, atrapar, correr y saltar, mostraron mejoría significativa en el desarrollo de la agilidad.

Palabras clave: agilidad; habilidades motrices; preescolar.

RESUMO

Introdução: A educação e o desenvolvimento das habilidades motoras, como dimensão do processo educativo, visam alcançar mudanças significativas no desenvolvimento de habilidades motoras que promovam a agilidade em crianças pré-escolares. Portanto, esta pesquisa teve como foco revelar os resultados de uma metodologia para o desenvolvimento da agilidade por meio da combinação de habilidades motoras como arremessar, pegar, correr e pular em crianças pré-escolares.

Objetivo: Desenvolver uma metodologia que forneça uma base para o desenvolvimento da agilidade por meio da combinação de habilidades motoras como arremessar, pegar, correr e pular em crianças pré-escolares.

Materiais e métodos: Foi realizado um estudo pré-experimental. A amostra foi selecionada por meio de amostragem intencional não probabilística; 20 crianças pré-escolares foram selecionadas que atendiam aos critérios de inclusão, exclusão e desistência. Métodos de níveis teóricos e empíricos também foram empregados, incluindo anlise e síntese, raciocínio indutivo-dedutivo, análise sistêmico-estrutural-funcional, análise documental, observação, entrevistas e questionários.

Resultados: A metodologia envolveu a aplicação de atividades motoras lúdicas baseadas na combinação de habilidades motoras como arremessar, pegar, correr e pular. Vinte crianças em idade pré-escolar participaram; 100% apresentaram melhora na agilidade por meio da combinação dessas habilidades.

Conclusões: As atividades motoras lúdicas aplicadas por meio da combinação de habilidades motoras como arremessar, pegar, correr e pular demonstraram uma melhora significativa no desenvolvimento da agilidade.

Palavras-chave: agilidade; habilidades motoras; pré-escola.

INTRODUCTION

The development of motor skills during early childhood is one of the fundamental pillars of the holistic growth of human beings. In the educational context, especially at the preschool level, gross and fine motor skills not only facilitate active interaction with the environment, but are also directly associated with neurological development, language acquisition, early literacy, and emotional regulation (Olhaberry & Sieverson, 2022; Roque *et al.*, 2023).

In this context, this work addresses one of the most current areas of research in preschool physical education, specifically regarding the educational and developmental aspects of motor skills in early childhood. From this perspective, the development of agility through motor skills in preschool children is the subject of this investigation.

Early stimulation is fundamental for enhancing motor skills in preschool children, as this period is crucial for physical and cognitive development. Various studies have demonstrated that, during the first years of life, the brain possesses high plasticity, allowing lived experiences to significantly influence a child's overall development (Hernández & Villa, 2025). Therefore, it is crucial to implement stimulation methodologies that promote optimal motor development from the earliest stages of life (Guaman, 2024).

In particular, the development of basic motor skills and coordinative physical abilities at these ages is recognized as a pillar for the formation of a solid motor base, from which the repertoire of actions that the child will be able to perform in his future life is structured (Arufe-Giráldez *et al.,* 2022).

Research design

Regarding the topic discussed, it is important to point out that in the scientific field there are various research precedents that, from different perspectives, analyze multiple theoretical and methodological approaches on motor skills and the progress of coordination with emphasis on agility in preschool children at a global level.

On the other hand, López Abella *et al.* (2021). In her research Methodology to evaluate basic motor skills in primary school students, which aimed to assess how basic motor skills of balance and movement are conceived and applied a methodology consisting of actions that allowed characterizing the context of the Colombian educational institution in which the research was carried out, it was concluded as a result that there are deficiencies that point to a teaching-learning process that is not conceived from a

pedagogically sound and systematic direction, which results in low results achieved by students in the development of basic motor skills.

Regarding other authors who have investigated how motor skills progress, Roa González *et al.* (2019) conducted a study related to physical activities for developing basic motor skills in children participating in the *Educa a tu Hijo program* . The study aimed to propose exercise routines to improve key motor skills in the children of this program. It was found that, after implementing physical exercises focused on motor development, a positive effect was observed in this area. The study concluded that the implemented physical activities served to consolidate the children's motor skills within the context of their analysis.

In another study, which takes into account the contributions of Zurita, V. H. D., and Torrell, I. C. G. (2019), who valued in their work entitled Methodological strategy for the training of teachers in early childhood education in order to develop basic motor skills in children, which aimed to show a teaching method based on foundations that encompass broad goals and a unified perspective , which was planned in four stages with concrete goals . An assessment was carried out using scientific criteria, where the relevance of the strategy yielded results considered very adequate according to expert criteria, which allowed us to conclude that it favorably improved the preparation of the teachers.

Alonso *et al.* (2022) In her research on movement games in the education and motor development dimension of preschool childhood, which aimed to propose movement games to enrich this dimension of motor skills, in which the interrelation with the other dimensions is evident, and used a playful methodological approach, achieving as results an improvement in the development of motor skills in preschool children, achieving greater interest and motivation for the practice of these playful activities and concluding with a tool based on a proposal of movement games to enrich the activities of the education and motor development dimension for preschool children.

These authors agree in placing the preschool child at the center of the educational process for the development of motor skills; therefore, he represents the main beneficiary in the integral development for his later stages.

In this regard, these investigations agree on the opportunity to intervene systematically and playfully to promote comprehensive motor development from an early age, showing significant progress in motor skills such as throwing, catching, running, jumping, among others. They also reinforce the idea that the systematic planning of games and exercises promotes the quality of motor development, which justifies the presence of structured didactic resources for the development of agility in the preschool context. This highlights the need to design methodological proposals contextualized in motor skills that, through their combination, create a precedent for the transition to the next school stage, responding to the particularities of the children and the specific conditions of the educational institutions.

With regard to the aforementioned authors, their significant impact on the relevance of motor skill development and play in preschool children is acknowledged, considering it a determining factor in their comprehensive progress toward a new educational phase, thus making them crucial precedents for the current research. However, epistemological gaps are observed in their scientific writings due to a lack of theoretical and methodological foundations that explain, from their perspectives, the methodologies, teaching strategies, and methodological guidelines for implementing, guiding, and developing agility training. The following epistemic gaps are highlighted:

- Limited conceptualization of agility: these authors focus their studies on basic motor skills, gross motor skills and motor competencies, but do not precisely define agility as a specific category within the coordinative abilities that comprise it; they usually measure running, jumping, balance and throwing as general indicators of motor development, without building a differentiated theoretical construct of agility.
- There is little articulation between motor skills and agility as a system, without explaining how they are integrated to develop agility.

- There is a predominant instrumental view towards activity programs, activity systems, exercise programs and educational games that improve motor indicators; however, methodological proposals that consider conceptions, principles, stages, categories, relationships and application procedures, forms of evaluation and feedback are limited.
- There is little reflection on how agility, understood as the ability to adapt quickly and effectively to changing situations, is related to processes of attention, decision-making, anticipation, and emotional regulation in children's play.

Similar results were found when carrying out a detailed analysis, which allows the identification, through observation of programmed activities in preschool education, as well as interviews, questionnaires to teachers and review of documents, of the following shortcomings:

- In observing the process of programmed activities, the teachers focus their attention on a single skill, noting deficiencies in the application of motor skills that, from their combination, favor the development of agility in preschool children.
- The methodological guidelines included in the preschool program reveal shortcomings in the work for the development of agility consistent with the relationships of impersonal didactics (contents to be addressed, methods and procedures), as well as in the prescription and evaluation directed to children who are going through this stage as a path to their integral progress in the dimension of education and development of motor skills.
- Scientific and investigative works related to the topic are restricted to recognizing the work of agility in preschool as a determining capacity prior to starting the school stage, establishing within their contents to address the development of motor skills separately.

Taking into account these theoretical and empirical shortcomings existing in the current context related to the topic shown in practice, the problematic situation is defined, synthesized in theoretical methodological deficiencies in the planning of work for the

development of agility in preschool children and its impact on the comprehensive improvement in the Education and Development of Motor Skills dimension.

Based on the foregoing, the following research problem can be formulated: How can the development of agility be fostered through the combination of motor skills such as throwing, catching, running, and jumping in preschool children? To answer this question, the authors propose designing and implementing a methodology for developing agility through motor skills. of throwing, catching, running and jumping in preschool children, and thus respond to the demands of the III Improvement in Early Childhood Education, specifically in the dimension of education and development of motor skills.

MATERIALS AND METHODS

Methods and techniques

Analytical-synthetic: for the study of the relationships between agility and motor skills and to establish qualities and regularities both in the theoretical systematization and in the interpretation of the results of the diagnosis and proposal of the methodology.

Modeling: It was used with the objective of interpreting and explaining the process of constructing the methodology in the educational process of preschool children, revealing, from the representation of this process, the essential relationships of the same and the categories that are interrelated in them.

Observation: It was used in the scheduled activities, with the objective of obtaining information about the current state of agility development in preschool children as part of their physical performance and verifying the effectiveness of the teachers' preparation.

Document analysis: allowed the review of the program and the current methodological guidelines in the new educational improvement, theses, books, articles, to determine the theoretical and methodological shortcomings on the development of agility in preschool children.

Survey: It was used to search for information on the level of knowledge that the teachers possessed in relation to the work for the development of agility, in the dimension of education and development of motor skills in preschool children.
Interview: to demonstrate the effectiveness of the preschool teachers' work in developing agility during the validation of the methodology.

Methodological training workshops: facilitated the sharing of contributions and the collection of reliable information.

Experiment in its pre-experimental form : it was used to test the effectiveness of the methodology under the current conditions of the preschool educational process.

Measurement: It was carried out in order to verify the initial levels of agility and motor skills of the preschool children in the sample during the programmed activities.

Methodological triangulation, to compare the information obtained from the application of different methods (evaluation by expert criteria in order to determine coincidences and discrepancies in the information.

Expert criteria: This was used to assess the effectiveness of the proposed methodology, to obtain critical judgments on agreements or divergences in order to improve and enrich it through expert evaluation.

Descriptive and inferential techniques were used to process the information obtained through frequency distributions, tables, and graphs that determine the magnitude of the variables.

Inferential statistics were used to compare the results obtained in the different tests and to test the hypothesis. The non-parametric Wilcoxon signed-rank test was used to determine the statistical significance between the pretest and posttest results . The data were processed using Microsoft Office Excel 2010 and the SPSS 26.0 statistical package for Windows.

For the collection of data related to the abbreviated MOBAK test, in the pretest and post-tests, motor skills were grouped into two dimensions: throwing and catching in the object control dimension, and running and jumping in the body control dimension. Each motor skill was evaluated as achieved – 2 points; in progress – 1 point; and not achieved – 0 points. This implies that the sum of the two skills comprising each dimension falls within a score of 0-4 points, allowing for a qualitative evaluation, where 4 points represents an excellent level, 3 good, 2 fair, 1 weak, and 0 a very weak level. The sum of the total points for each dimension allows for a comprehensive evaluation of 0-8 points, where 7-8 points

High level: 5-6; medium level: 3-4; low level: 0-2; very low (Tables 1 and 2).

Table 1 *- Interpretation by dimension 0-4 points*

Puntaje	Nivel	INTERPRETACION PEDAGÓGICA
4	Excelente	Dominio completo de ambas habilidades; base sólida para la agilidad
3	Bueno	Competencia funcional; puede enfrentar tareas motrices combinadas
2	Regular	Base aceptable; necesita perfeccionamiento para la automatización
1	Débil	Inicio de desarrollo
0	Muy débil	Ausencia de patrón motor básico; intervención prioritaria

Table 2. *- Interpretation of the total score: object control and body control 0-8 points*

Rango	Nivel	Interpretación pedagógica	Acciones
7-8	Alto	Competencia motriz solida	Base excelente para la agilidad
5-6	Medio	Nivel funcional	Requiere perfeccionamiento selectivo
3-4	Bajo	Base motriz limitada	Necesita intervención sistemática
0-2	Muy Bajo	Déficit significativo	Atención prioritaria

Sample and methodology

A correlational study was conducted, using a pre-experimental design of minimal control, through a pretest and a posttest , in which, after the initial experiment, the independent variable supported by the methodology is applied and subsequently the results are evaluated and its effectiveness is verified (Table 3).

Table 3. *- Sample*

Population	Sample	F	M	%	Average age of children
40	20	6	14	50	5-6 years

Inclusion criteria: Children in their sixth year of preschool, aged between 5 and 6 years. Exclusion criteria: Medical prescription preventing them from participating in motor activities, transfer from another childcare institution, or relocation to a different area. Withdrawal criteria: Lack of systematicity in the activities and execution of motor skills when applying the methodology.

The proposed methodology is based on the guidelines of Armas (2005), who states that "the methodology consists of an organized series of steps that facilitate achieving certain objectives" (p. 124).

The proposed methodology has the general objective of: Promoting the development of agility through the combination of motor skills of throwing, catching, running and jumping in preschool children.

The functionality of the methodology for developing agility through the combination of motor skills of throwing, catching, running and jumping in preschool children is supported by the description of its four stages, which are related below.

First stage: diagnosis and familiarization:

Specific objectives: to provide theoretical and methodological training for the teachers and to evaluate them. To ascertain the current state of the motor skills of throwing, catching, running, and jumping, and the agility capacity using the MOBAK-KG test. To familiarize the child with the development of agility by combining up to two motor skills of throwing, catching, running, and jumping, while maintaining the combination of one of them.

Proposed content:

Motor skills: perform activities where individual actions for each skill (throwing, catching, running and jumping) are evident bilaterally.

Agility: performing simple combinations that integrate up to two motor skills (throwing, catching, running and jumping) without ceasing to combine one of them.

Second stage: execution and development of agility:

Specific objectives: to carry out activities for the development of agility by combining three motor skills that integrate any of these skills: throwing, catching, running and jumping in the same programmed activity.

Proposed content: corresponds to the combination of three motor skills that integrate (throwing, catching, running and jumping) in any of their forms, without ceasing to combine one of them.

Third stage: systematization of agility:

Specific objectives: Perform activities to develop agility by combining these four motor skills (throwing, catching, running and jumping) in the same programmed activity.

Contents proposed for this stage: are focused on the combination of the four motor skills of throwing, catching, running and jumping in any order, as long as it integrates the four skills.

Fourth stage: evaluation of the methodology:

Specific objectives: to evaluate through the pre-experiment the changes produced in the agility of the children during the application of the methodology.

Contents for the fourth stage:

Apply the MOBAK-KG test for throwing, catching, running, and jumping skills.

Each stage includes methodological guidelines, among which the following are emphasized:

- In week six of each stage, the teachers will keep a record of the stage's objectives to monitor their progress; if any child is at a level not yet achieved, the teachers will carry out differentiated work to help the children move on to the next stage.
- Motor skills in the first stage: each one is performed separately and then up to two skills are combined to familiarize them with the beginning of agility development; then, in the second stage, three skills are combined, always bearing in mind that, in both the first and second stages, no motor skill is left untreated, the objective of each stage being invariable, and in the third stage the four skills are combined.
- The teachers will carry out the agility content at each stage supported by the use of the game method, requiring the activities to be carried out with economy of time.

- In the event that a child does not meet the objectives that allow him to move on to the next stage, the teacher is obliged to apply other strategies, use other methods and procedures that allow him, based on individualization, to achieve advancement to the next stage.
- To ensure the content is covered, teachers must start with a clear orientation that allows them to introduce the child to the motor actions they will perform in the next stage.
- To perform the final test (MOBAK-KG) on preschool children, keep in mind to control the same tests and items as in the pretest, maintain the same specialized personnel who performed the pretest, maintain the same control of variables such as time, place, area and the same measuring instruments.
- The preschool teachers, after evaluating each test, will make comparisons with those made in the pretest during the first stage to assess their progress.
- Preschool teachers will provide relevant guidance to the families of these children and to the recreation teachers of each sports complex that serves residential areas, in order to continue carrying out motor skills activities with these children both in the family and community environment.
- The final results will first be shared with the teaching staff, local groups, and families of the children involved in the study.

The stages of the methodology proposed for the development of agility through the combination of motor skills of throwing, catching, running and jumping in preschool children are based on the synergy established between the components of the theoretical cognitive apparatus and those of the methodological or instrumental apparatus, as well as the dialectical relationship established between the stages that make up the instrumental apparatus, which is specified in the following (Figure 1).

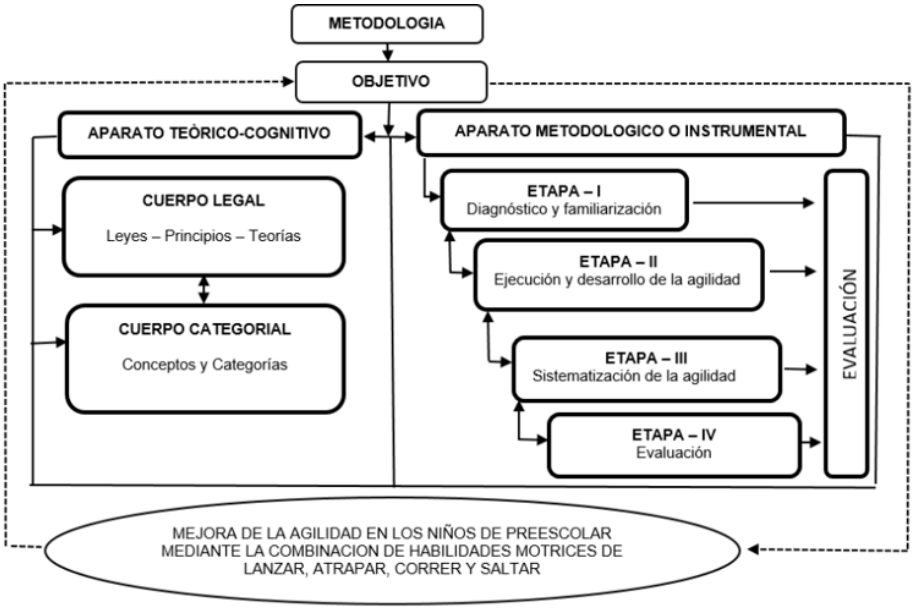

Fig. 1. *- Graphic structure of the methodology*

Once the methodology has been developed, expert review is conducted to identify points of agreement and disagreement among experts. This will help determine the level of consensus regarding the methodology's effectiveness. To implement this approach, it is essential to follow the key steps for conducting a qualitative evaluation of research contributions using the expert review method. These steps are described below:

1. Defining the purpose: assess through expert judgment the effectiveness of the methodology applied in practice.
2. Selection of experts: it was carried out summoning 26 potential experts, who were he asked complete a form that collects information staff, including: name complete information, profession, organization they belong to, years of experience in their profession, years of experience in research, teaching and scientific category that they have, So as his workplace.

Participants are then asked to indicate their level of understanding with an (X). Regarding the topic of study, using a scale from 1 to 10, multiplied by 0.1. In this scale, a value of 0 suggests lack of knowledge about the problem being evaluated, while a 1 reflects considerable knowledge. A table is then presented containing the sources of argumentation related to the research topic. Respondents were asked to rate the

influence of these arguments using an (X) on a scale of 1 to 10, in relation to the knowledge they have acquired on the subject in question . Next, the competition coefficient (K) is calculated , which is determined Adding the knowledge coefficient (Kc) to the argumentation coefficient (Ka) and dividing the sum by two: K = (Kc + Ka) / 2. The results Values of 0.8 to 1 will indicate a high degree of competence , values of 0.5 to 0.8 will indicate medium competence , and values of 0.5 to 0.8 will indicate a low degree of competence. less than 0.5 . considers that person an expert whose K is between 0.8 and 1.0 ; after complete this analysis Statistical analysis: 20 experts were chosen from a total of 26. which represents 76.9 %.

Preparation of the questionnaire or guide

Approach selection : it was decided opt by the preference approach , using individual procedures directed to each expert , who are provided, in written form, their opinions on the benefits, shortcomings , and deficiencies that, in their opinion, the approach presents , both in its theory and methodology and in the effectiveness that it could demonstrate its practical application.

Application of the approach: it was carried out after delivering The questionnaire , detailed below, was given individually to each expert. The experts evaluated each of the items. mentioned, using a rating scale ranging from 1 to 7 (Table 4).

Table 4. *- Questionnaire for expert criteria on aspects of the methodology*

No	Aspects to evaluate the methodology	Rating scale						
		7	6	5	4	3	2	1
1	How do you evaluate the structure assumed in the methodology?							
2	How do you evaluate the theoretical foundations assumed to build the methodology?							
3	How do you evaluate the structural components of the methodology?							
4	How does it assess the relevance of the laws and the theoretical and methodological principles of the methodology?							
5	How does it evaluate the agility development component in relation to theoretical and conceptual references?							

6	How do you assess the clarity of the dimensions and logical steps of the methodology and their relationship to the overall objective?							
7	How do you assess the methodology's alignment with current demands for developing agility in preschool?							
8	How do you evaluate the methodology as a practical result?							
9	How do you assess the adaptability and capacity to adjust to the current conditions of motor development in preschool?							
10	How do you evaluate the results that will be obtained with the application of the methodology, as a proposed solution to the scientific problem?							

RESULTS AND DISCUSSION

Twenty experts were chosen from a total of 26. which represents 76.9 %. All with a high competence coefficient: K between 0.8 and 1.0; therefore, they are in a position to issue criteria on the methodology (Table 5).

Table 5 *- Expert results on the questionnaire to evaluate aspects of the methodology*

Experts	Questions									
	1	2	3	4	5	6	7	8	9	10
1	6	5	6	7	6	7	6	7	6	7
2	5	6	5	6	6	7	6	7	6	7
3	6	6	5	6	7	6	6	7	6	7
4	5	6	6	6	7	6	6	7	7	7
5	5	6	7		7	6	6	7	6	7
6	6	5	6	6	7	6	6	7	6	7
7	5	6	5	6	6	7	7	6	6	6
8	6	5	6	6	7	7	6	7	6	6
9	5	5	6	6	7	6	7	6	6	6
10	5	7	5	6	6	7	6	7	6	7
11	5	6	5	7	6	6	6	6	7	7
12	5	7	6	6	6	6	7	6	7	7
13	6	6	5	6	7	6	6	7	7	7
14	6	5	7	6	7	6	7	6	7	7
15	6	5	6	6	7	6	7	6	7	6
16	6	6	6	5	6	7	7	6	7	7
17	5	7	7	6	6	7	6	7	7	7
18	5	7	5	7	6	6	7	6	7	7

19	6	5	6	6	6	7	6	7	7	7
20	6	6	6	7	7	6	6	7	6	7

The results obtained through of the individual analysis of each specialist The various elements mentioned in the questionnaire showed that the factors Those evaluated by all the experts were rated between 5 and 7. this Thus, it can be deduced that the proposed methodology for developing agility through the combination of motor skills in preschool children, as well as its possible effectiveness in the field educational, are satisfactory.

The calculation of Kendall's coefficient of agreement and its statistical significance was carried out using the SPSS 26.0 statistical software for the system operational Windows . Given that the selected set of experts consists in 20, it has considered a margin of error in the estimate of 2.5%, which is considered relatively small. By Therefore, the decision based in this evaluation, it can be treated as reliable and valid.

The calculated Kendall's concordance coefficient (K = 0.82) suggests that there is a remarkable agreement among the specialists regarding the effectiveness of the methodology; therefore Therefore, the null hypothesis is rejected and the alternative hypothesis is accepted, with a confidence level of 99.9 %. This This implies that the expert opinions are coinciding.

Analysis and interpretation of the results in qualitative order, taking into account pre-test and post-test

Once the methodology was applied by the teachers to the 20 children in the sample, a significant improvement in the overall performance of the preschool children was observed when comparing the pretest and posttest. The results for the object control dimension showed that only one child achieved an excellent rating, reaching the required four points and demonstrating complete mastery of both skills, while in the posttest, 14 children achieved this rating. On the other hand, only three children received a good rating, achieving three out of four possible points, and in the posttest, the number of children with this same rating doubled to six. This indicates a notable progression toward mastery of object control skills. Upon reviewing the lower assessments, a total of

eight children were rated as average, seven as weak, and only one child as very weak. This required systematic interventions through specific play-based activities, both in the morning gymnastics sessions and in the scheduled activities, aimed at improving these results. A significant improvement was evident in the post-test , where these lower categories disappeared completely. This means that all the children reached a higher level of functional competence and motor skills, thus demonstrating a transition in development with a tendency towards full mastery in higher categories (excellent), reflecting effective progress in the development of agility as an essential quality of these skills.

These advances are related to the methodological requirements and the systematic approach to developing specific throwing and catching skills, demonstrating the effectiveness of the interventions made to the educational process of the motor skills development dimension through the programmed activity. Using the same evaluative categories, a qualitative and comparative analysis of the body control dimension for jumping and running skills was conducted through pre-tests and post-tests.

The qualitative analysis of body control in jumping and running skills, based on the results of the pretest and posttest , shows a revealing improvement in the development of these motor skills in the group of children evaluated.

In the pretest, most children scored in the fair and good categories, indicating that while some had adequate skills, they still needed to improve their body control while jumping and running. The presence of one child in the excellent category, representing 5%, shows significant potential, but the fact that 95% of the children were in the lower categories reflects a clear need for intervention and development in these skills. In the posttest , a remarkable transformation is observed. 95% of the children reached the excellent category, while only one child remained in the good category. This reveals that the majority of children not only improved but mastered the jumping and running skills. The comparison between pretest and posttest shows a general improvement: the transformation from a majority in low categories to almost all in the excellent category is a clear indicator that the interventions carried out between the pretest and posttest

were effective, thanks to an appropriate pedagogical approach with frequent practice and a motivating environment that influenced the outcome.

Having Taking into account the established scores and levels achieved by the children in the dimensions of object control and body control, the analysis is generally synthesized based on the pedagogical interpretation and the actions to be carried out according to the results of the pretest.

In the 7-8 point range, one child (5%) scored high, demonstrating solid motor skills and an excellent foundation for developing agility in preschool. This child exhibits a functional level of agility and the potential for more complex skills. Therefore, the teacher should continue providing individualized and differentiated instruction to further promote agility and coordination, as well as introduce games that require advanced skills. Six children (30%) scored 5-6. These children demonstrate a medium functional level of motor skills. While capable of performing basic actions, they require targeted refinement to reach higher levels. The teacher is advised to implement specific play-based activities that address areas for improvement in both jumping and running to help these children consolidate their abilities. Twelve children (60%) scored at a low level (3-4 points), demonstrating a limited motor foundation. This indicates that their motor skills require attention and systematic development. Therefore, it is crucial for the teacher to design an intervention program focused on developing basic skills, using play-based activities that encourage participation and learning. Only one child (5%) scored at a very low level (0-2 points), facing significant difficulties with their motor skills and showing a lack of confidence and willingness to participate in designed activities. In this case, the teacher will create priority actions with individualized requirements, including additional support and activities adapted to their specific needs.

Regarding the post-test results, all 20 children achieved a high level (7-8 points), representing 100% of the total and demonstrating an excellent level in their motor skills. This reflects significant progress and solid motor competence. For these children with an excellent foundation in agility, the teacher will introduce more demanding, complex, and varied challenges to maintain their interest and further foster the development of

advanced skills. Considering the potential benefit of including competitive games, this approach could be advantageous for the children.

A comparison of the pre-test and post-test results reveals a widespread improvement. The shift from only one child at the high level in the pre-test to 20 children at the high level in the post-test demonstrates a remarkable increase in motor skills, both body control and object manipulation. This quantitative and qualitative change suggests that the implemented methodology has been effective and has positively impacted all the children. No children appeared at the medium, low, or very low levels in the post-test , indicating that all the children have overcome their initial limitations and developed sufficient skills to improve their agility and be considered at a high level. This is a clear indicator of the success of the intervention in the educational process of motor skills development. Therefore, teachers, as the guiding force in the educational process, should continue with a systematic approach to motor development. Planning new strategies to keep children motivated and engaged in their physical learning is essential.

CONCLUSIONS

He The diagnosis of the current state confirmed the existence of gaps in pedagogical practices, characterized by a fragmented application of motor skills and a limited intentionality towards the development of agility within the dimension of education and motor development.

The expert evaluation and the results of the pre-experiment validated the relevance and effectiveness of the methodology, demonstrating significant progress in motor skills through their combinations, which shows an effective way to develop agility.

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