2024, Retos, 55, 745-755

Socio-educational strategies plan for the development of psychomotor skills in early childhood education students

Plan de estrategias socioeducativas para el desarrollo de competencias psicomotoras en estudiantes de educación inicial

*Pedro Erick Gastelum-Acosta , *Daniel Ramón Acosta López, *Giovanni Isaí Ramírez Torres, **Arturo Iván Chávez Erives, **Gabriel Gastélum-Cuadras

*Universidad Autónoma de Sinaloa (México) **Universidad Autónoma de Chihuahua (México)

Abstract. The development of psychomotor skills allows students to demonstrate movement skills, knowledge and social relationships that strengthen the personality of the individual. The purpose of the study was to propose a plan of socio-educational strategies for the development of psychomotor skills in early education students of the Sewarare 1200 kindergarten, located in Mexico. It was configured within a quantitative paradigm, of a descriptive-projective type, with a transversal non-experimental design, with a sample of 47 students and 4 teachers, to whom a questionnaire structured in two parts was applied. The results showed that initial education teachers in the area of Physical Education have moderate and low knowledge in the management of socio-educational strategies. While the students demonstrated a moderate and low level of psychomotor competencies. Hence the need to propose a plan of socio-educational strategies for the development of psychomotor skills in students which offers elements of experiences, adaptation to space, relationship with others, bringing rewarding and healthy emotions, essential for the future performance of the learner in the different facets of life, besides being a pedagogical tool to help teachers to contribute and improve their school practice.
Key words: Learning, didactic activities, sensory coordination, physical education, movements.

Resumen. El desarrollo de competencias psicomotoras permite que los estudiantes demuestren habilidades de movimientos, conocimientos y relaciones sociales que fortalecen la personalidad del individuo. El propósito del estudio fue proponer un Plan de estrategias socioeducativas para el desarrollo de competencias psicomotoras en estudiantes de educación inicial del Jardín Sewarare 1200, ubicado en México. Se configuró dentro de un paradigma cuantitativo, de tipo descriptivo-proyectivo, con un diseño no experimental transversal, con una muestra de 47 estudiantes y 4 docentes, a quienes se les aplicó un cuestionario estructurado en dos partes. Los resultados demostraron que los docentes de educación inicial en el área de Educación Física poseen conocimientos moderado y bajo en el manejo de estrategias socioeducativas. Mientras que los estudiantes demostraron un moderado y bajo nivel de competencias psicomotoras. De allí la necesidad de proponer un plan de estrategias socioeducativas para el desarrollo de competencias psicomotoras en los estudiantes la cual ofrece elementos de vivencias, adaptación al espacio, relación con otros, trayendo emociones gratificantes y saludables, esenciales para el futuro desempeño del educando en las diferentes facetas de la vida, además de ser una herramienta de ayuda pedagógica a los docentes para contribuir y mejorar su práctica escolar.
Palabras clave: Aprendizaje, actividades didácticas, coordinación sensorial, educación física, movimientos.

Fecha recepción: 19-11-22. Fecha de aceptación: 27-03-24
Gabriel Gastélum Cuadras
gastelum@uach.mx

Introduction

Physical activity is important and necessary for the development of both the body and the mind (Rodríguez et al., 2019). This is achieved through Physical Education (PE), which aims to enhance physical skills in the cognitive, emotional, and social domains during early childhood education (Sáez-Sánchez et al., 2021; Zueck et al., 2019; Zamorano et al., 2018). This stage possesses certain peculiarities and characteristics that require careful attention in situations involving autonomy deficits, social relationships, object manipulation, lack of practice and training with precision, and cognitive development.

Therefore, the teaching-learning process develops not only the physical conditions but goes beyond the physical movement aspect, involving the connection between the abstract (thoughts and emotions) and the concrete (movements), thus balancedly strengthening the psychomotor aspect in the students (Mendiara & Gil-Madrona, 2016). This balance is achieved by observing the learner's adaptation, ability to locomotion without difficulties, motivation, interaction, and relationship with their peers and the environment around them, once it is put into practice (Franco et al., 2016). In this way, the capacities and abilities present in the learner markedly demonstrate psychomotor competencies, which are the skills individuals have for moving the body in time and space (Sáez-Sánchez et al., 2021). Furthermore, Ruiz-Pérez, et al., (2015) consider motor competence as all the capacities that human beings possess to perform complex motor activities, enabling them to be efficient and effective in their environment.

Regarding this, motor competence comprises three dimensions. The first is the affective-social aspect, which refers to the set of emotions and decisions practiced during the learning process; The second is the perceptual-cognitive dimension, involving mechanisms that activate perceptual and cognitive performances that change over life and significantly influence motor development; And the third is the neuromotor dimension linked to motor actions. In this way, it becomes evident that motor competence integrates the various abilities that humans have to execute movements and solve motor problems that occur in daily life and in sports practice, serving as the primary purpose of PE (Ruiz & Linaza, 2013; Luis-de Cos et al., 2019).

In this sense, various research studies have been conducted on the development of psychomotor competencies

in the field of PE, aiming to strengthen motor and socio-emotional development for the comprehensive development of learners (Muñoz-Arroyave et al., 2020; Viciana et al., 2017; Lavega et al., 2013). Thanks to the teaching approaches adopted by educators, leading the learner to engage in a dynamic process where action, fun, and information prevail with the aim of constructing meaningful knowledge and experiences (Roig et al., 2022; Rodríguez et al., 2020; García-González & Froment, 2018). Therefore, PE promotes the practice of physical activity, sports, and recreation, making it of paramount importance to implement it from the early levels of an individual's formal education. This is not only for thinking development but also for maintaining good health and social integration among students (Muñoz-Arroyave et al., 2020).

However, there are early childhood educational institutions with children facing challenges in the development of fine and gross motor skills, which hinders the achievement of real and ideal educational outcomes for preschool children, and one of the potential causes is the lack of pedagogical strategies and family involvement by teachers to promote the mental and physical exercise for the comprehensive health and well-being of the learners (Barreto, 2018).

Related to it, Pons and Arufe (2016) noted in their research that early childhood educators do not implement an adequate quantity of physical activities, in educational institutions without proper pedagogical treatment. The insufficient emphasis on physical activities related to learning content, leads to a missed opportunity to create meaningful bodily experiences and significant learning outcomes, just as it impacts students' health due to sedentary behavior, which hinders psychomotor development (Cigarroa et al., 2016).

In this way, the role of the PE teacher must play a crucial function in the planning and execution of consistent practical and theoretical activities, taking into account the specific characteristics of the students for the development of motor competencies, Therefore, there is a need to design innovative activities that strengthen the required skills and competencies resulting from physical activity as a lifestyle, discipline, recreation, health promotion, values education, and sports initiation (López Pastor et al., 2016; Aristizabal-Almanza et al., 2018). Within this context, promoting healthy lives from an early age through physical activity necessitates a continuous adaptation of the environments and stimuli provided by teachers to engage in motor exercise while concurrently developing affective, cognitive, and social skills, this is not only aimed at fostering healthy states and growth, but also at enhancing the understanding of the world (García-Marín & Fernández-López, 2020).

For this very reason, in Mexico, psychomotor competencies represent a dimension of special relevance in the Preschool Education Program (PEP), since it incorporates the formative area "physical development and health", whose purpose is to promote physical activity from an early age, in order to strengthen dynamic and healthy life habits in students (SEP, 2011). However, most early education teachers in Sewarare, Chihuahua, do not plan socio-educational strategies that allow the development of the corporal area with the contents of school learning. In addition to the fact that the participation of the students goes more towards playful activities of free choice, without intention, wasting the environments and part of the time, besides that the students present difficulties in some movements and displacements, spatial location and language, so that the techniques, methods and resources used are under the traditional and monotonous approach lacking social integration that limits the enrichment of learning and the acquisition of psychomotor skills.

Based on these statements, a plan is required to guide and integrate recreational activities that strengthen fine and gross motor skills that affect the quality of life and the integral development of the personality of children. This plan is a graphical, orderly representation that guides step by step the activities and actions to achieve the objectives of the educational program. It is also considered as a planning focused on actions in order to meet and improve an undesired situation (Vilaú et al., 2012). Therefore, the plan of socio-educational strategies to strengthen psychomotor skills would constitute a tool for coordination and institutional articulation of actions and means for the acquisition of self-control, coordination, socialization, language, humanization and thinking that, through motivation, would be pleasant and beneficial to all the actors involved.

Based on this reality, the objective of the study was to propose a plan of socio-educational strategies for the acquisition of psychomotor competencies in students of the third level of early education Sewarare 1200, Mexico.

Method

The study was configured within the quantitative paradigm, of the descriptive-projective type, that which seeks to present a plan or model as a solution to a practical need of a group of people and institution, which from the estimation of needs generates explanatory processes with future trends (Hurtado, 2000). The design was adjusted to the non-experimental cross-sectional design.

Participants

The sample consisted of 4 early education teachers specialized in PE, and 47 students in the third level of early education at the Sewarare 1200 kindergarten, Chihuahua, Mexico (χ= 6.00 years of age). The group that participated was 40% male and 60% female. The students were selected with the following inclusion criteria: a) willingness to participate in the research through the permission granted by parents and representatives, b) age between 6 and 7 years old.

In relation to the criteria for inclusion of the teachers this was a) willingness to participate in the research, b) having more than six years of experience in the teaching profession and in the area of physical education. In this way, informed consent was obtained from the sample under

study. Likewise, all the information provided was guaranteed under the criteria of anonymity and confidentiality since it would be processed for research purposes.

Instruments

A survey and a questionnaire structured in two parts were used for the acquisition of data on the variables. The instrument addressed to teachers on socio-educational strategies, constructed by the researchers taking into account three dimensions: techniques, methods and resources, called ESETMR, made up of 24 items.

While the variable psychomotor competencies taken from the Checklist of Psychomotor Activities (CPA) by Romero et al. (2018), observation sheet with a reliability of 0.93, adjusted by the researchers and structured in three dimensions, called physical-motor factor, perceptual-motor factor and affective-relational factor, made up of 18 items, responding to the Likert scale to five response alternatives (never=1/always=5), interpreted through decision criteria (Very high, High, moderate, Low, Very low).

The instruments were validated by three experts in the field of learning and physical education through content validity, issuing comments on the adequate consistency of the items for each dimension. Likewise, to obtain the reliability of both questionnaires, the Alpha Cronbach was used, resulting in high reliability.

Procedure

The study was conducted during the months of October, November and December 2019. In three phases:

- In the first phase, the diagnosis of the problem was carried out where psychomotor difficulties were detected in early education students and the lack of socio-educational strategies implemented by teachers.
- In the second phase, validation by experts and application of the instruments (Annex 1) to the sample under study to objectively know the behavior of the variables.
- The third phase, data processing and analysis was carried out through standardized quantitative methods (descriptive statistics), using the SPSS statistical package, version 22.0 Windows software, on the original information, the results of which are presented below to be interpreted, discussed and concluded.
- The last phase consists of proposing a series of activities according to the results obtained after the application of the instruments to the participants.

Results

The results were shown and contrasted with the theories underpinning the study, and at the same time interpreted according to the established decision criteria. As can be seen in Figure 1, 25% almost always use illustrations, labeled letters and numbers, and balls for the knowledge selection and application of resources, 50% sometimes use assembly cards, strings, balloons, and stories, while 25% almost never use songs, music videos, stories via television or computer, and family or community meetings for exercise and recreation.

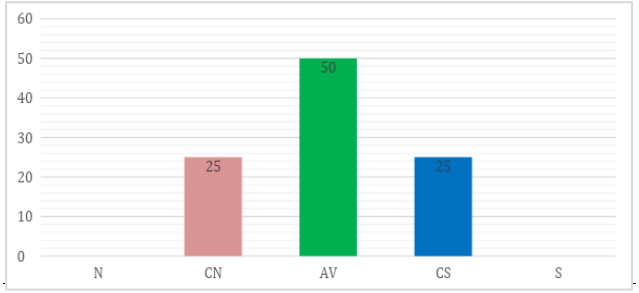

Figure 1. Resources dimention. Source: Elaboration of authors, based on the survey applied to the sample

In this way, as illustrated in Figure 2, in the knowledge and management of methods, 25% of the PE teachers, almost always perform accompaniment, 25% sometimes engage in group work and homework assignments, while 50% almost never apply guided discovery with parental and representative involvement, reciprocal teaching, individual and group problem-solving.

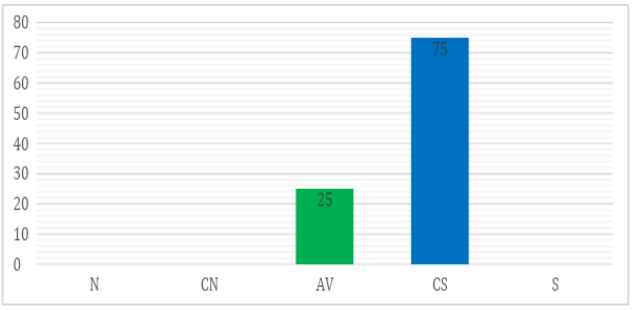

Figure 2. Methods dimention. Source: Elaboration of authors, based on the survey applied to the sample

Figure 3 shows that in the techniques dimension, 75% choose "almost always", and 25% choose "sometimes" for using techniques. This indicates that early education teachers in the area of PE at the Sewarare 1200 kindergarten, Chihuahua, have moderate and low knowledge of techniques, because they only use exposure and manipulation of objects, leaving aside jumping, swinging, throwing and receiving, collaborative work, guided time with family contact, allowing only order and compliance with rules that demotivate the student during the time they are in the classroom.

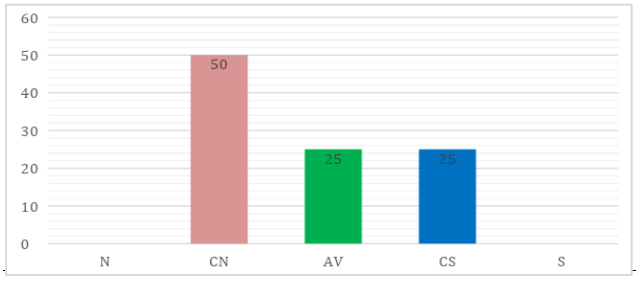

Figure 3. Technique dimention. Source: Elaboration of authors, based on the survey applied to the sample.

Figure 4 illustrates that the students under the observation of the teachers demonstrated in the physical-motor factor that 42% of they sometimes execute movements such as jumping, grabbing the scissors and cutting, 36% almost always develop their laterality, dynamic coordination and motor execution, 13% always present postural tonic control, respiratory control, and 9% never lose their balance.

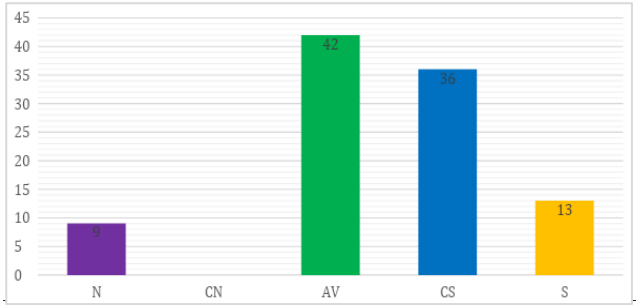

Figure 4. Physic-motor factor dimention. Source: Elaboration of authors, based on the survey applied to the sample.

Figure 5 corresponds to the motor perceptual factor: 42% of the early education students show that they sometimes experience spatial disorientation, 36% almost never show motor dissociation, 12% always develop their visual-motor coordination, and 9% almost always show their schemas and body image.

In relation to the previous figure, which encompasses the affective-relational factor (Figure 6), teachers observed that 42% of students sometimes control their emotions, 40% almost never show their intrapersonal sense, knowledge and expressions, 13% always seek to relate socially and 5% always reflect the interpersonal sense seeking to interact with others in an autonomous way.

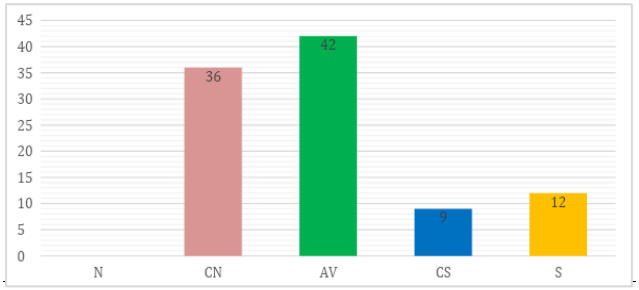

Figure 5. Perceptive-motor factor dimention. **Source**: Elaboration of authors, based on the survey applied to the sample

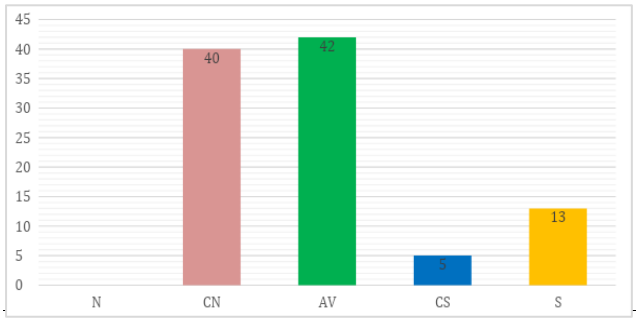

Figure 6. Affective-relational factor dimention. Source: Elaboration of authors, based on the survey applied to the sample.

Table 1 presents the plan with five socio-educational strategies for the development of psychomotor skills in early education students, which are learning activities that can be used continuously, by groups according to the available schedule of teachers, parents, representatives and community, each strategy will have a learning activity, resources and evaluation, these can be redesigned if required since they can be adjusted to the needs of the students. It should be noted that some activities will be presented to guide learning both inside and outside the classroom.

Table 1.
Plan of socio-educational strategies for the acquisition of psychomotor skills in early childhood education students

Environment	- School - Community - Family			
Participants	Early education students, mothers, fathers and representatives, physical education teachers, early education teachers, health specialists, community			
Psychomotor Competencies	Socio-educational strategy	Learning activity	Resources	Review
Knows and values his or her body through the execution of physical activities as a source of recreation and a means of expression to take care of health, contribute to integral development and make the best use of free time.	Weekly didactic-recreational activities	Early childhood education teachers specializing in PE present a designed planning that includes didactic games to obtain better coordination, strength and balance. Long rope course A long rope is placed on the floor, and the children must perform certain actions indicated by the physical education teacher. The children are asked to form a line to begin the first activity. The children are asked to run and jump over the rope. Children are asked to walk over the rope in balance, first forward, then sideways and finally backwards. They stand on one side of the rope and are asked to jump the rope from side to side and forward-backward supporting hands and feet alternately. They are asked to jump with both feet together and then with the right and left feet alternately. The rope will be lifted 5 centimeters off the ground and the children will have to run and jump over it.	-Thick cord -Board that does not represent any risk for the students. -Open space (courts, or community common spaces).	Formative. Summative: By literals. Performance levels rubric.

		Again the rope is lifted 20 centimeters and the children are asked to crawl over it. With the rope 20 centimeters off the ground, the children are asked to roll over it. The rope is raised 30 centimeters above the ground and the children are asked to try to reach it by jumping. Play the "sea snake" game and to find out who wins, melon or watermelon, use the rope where each team pulls on each end of the rope end. ¡I dance and perform! Programming of dances and performance to allow the student, parents and representatives to feel their body and externalize themselves, becoming aware of the position and tension of the muscles, these activities require a space-time concordance. Students are asked to stand in groups behind the guide on the floor. Students must listen to the music rhythm and obey the teacher. They are asked to follow the movements. There they perform up-down, right-left movements. Turn the body, one group to the right and other one to the left. Until they perform coordinated movements in an aesthetic and dynamic way. Performance of a musical piece every four months.	-Suitable clothing -Music player, which will facilitate the harmonious combination of uninterrupted movements in space, which musical hearing creates and orders. -Free space (courts or common spaces for the community)	-Formative. Summative: Performance levels rubric.
Knows and values group work, where everyone communicates and develops physical-recreational activities through expression, strengthening positive attitudes.	Collaborative work	Early education teachers specializing in PE present planning that includes activities for the development of thinking and social and emotional relationships. Example of thinking development activities: The story develops language and imagination. Students, parents or companions are asked to stand in a semicircle on the floor, observing their teacher. The students should listen attentively to the teacher who with words, gestures and images will narrate a story. The teacher can use background music, projections of images using technological equipment. Students are then asked what they understood, or which character they identify with the most and why. Parents or companions are also asked the same question. There the teachers will perceive the capacity of expression and imagination of the assistants. Example of activities for the promotion of social and emotional relationships: The little soldiers Students and parents are asked to stand in a group behind a guide (who acts as captain), who gives the orders that the soldiers (students) must follow. The students must obey only those orders that are preceded by the phrase "captain's order". If they do not comply with the orders preceded by this phrase, they leave the game and help the captain to control the infractions committed by the rest of the students. Students are asked to lie on their backs on the floor to perform up-down, right-left movements. They are asked to lift one leg without mentioning whether it is right or left. On the floor, they are asked to raise both hands at the same time at different speeds as ordered by the captain. They are asked to raise one hand and after lowering it raise the other hand, these movements can be forward or upward depending on the captain's order. They are asked to run all over the court/room either forward, backward, with one foot or the other. They are asked to give a group or chain hug.	-stories -Pictures -Music player -Mobile phone -Suitable clothing.	Formative. Summative: Performance levels rubric. Formative. Summative: Performance levels rubric.
Develops organizational skills and capacities to strengthen students' physical and motor skills that favor mental and physical maturation.	Formation of a healthy network	Early education teachers specializing in PE and health specialists present a plan that includes the creation of healthy networks. - Formation of groups - Physical activity - Emotional well-being -Healthy eating. - Each group will be integrated by parent representatives, teachers, community and health personnel who will link their activities and programming. - Each group has its objectives to promote through socio-educational strategies the psychomotor development of early education students so that they are formed with an integral personality. - Each group will manage resources, volunteers who want to participate in community meetings for the development of physical activities, and healthy eating for the emotional well-being of students and parents. - As long as there are healthy families, we will have individuals capable of facing unfavorable situations.	-Kindergarten workrooms. -Computer - Internet - Equipment	Formative. Summative: Performance levels rubric.

Values activities with movement as a means, physical exercise, recreation, promoting values that are the result of individual and collective educational practices.	Guided family contact hour	The early education teachers who specialize in PE present a schedule that includes guided family contact time. This hour is set aside by the parents, as well as organized and scheduled by the teachers. It includes the following activities: creative and recreational games, and personal development. Example: recreational and formative games for parents and students.: The teacher forms two groups with the students and parents and representatives, and they are asked to line up in a row each. The students and parents are told what their signal will be. At the teacher's signal the children and parents begin the journey from one end of the community court to the other. They must balance a blackboard eraser on their head. When they reach the end of the starting line the student and the next parent take the eraser off and place it on their head, leaving to repeat the course. Whoever drops the object, must stop and replace it, before continuing in the game. During the race, no student may hold the eraser with his/her hands to prevent it from falling. The same activity is repeated but with different material (magazine, newspaper, inflated balloon). Example: personal development strategy: Identity: Dramatizing stories (Pinocchio) They will listen to the story through the teachers. Selection of characters Development of roles of the characters. What parts of the body were used during the activity. Questions for the children: What do they want to be when they grow up? And for the parents, what did they observe in the behavior of the characters? Reflect on the values present in the story.	-Eraser -Magazine or newspaper -Notepad -Handkerchief -Ruler. -The amount of materials depends on the number of children in the classroom. -Bag of balloons. -Suitable clothing to represent the scene.	Formative. Summative: Performance levels rubric Formative. Summative: Performance levels rubric.
Develops cognitive capacities and skills to strengthen attention, memory, concentration, and physical and motor skills that favor mental and physical maturation.	Wordplay through images	Early childhood teachers with a specialization in physical education present a plan that includes word games through images. Images of animals, objects and people are presented. The student will identify it, and express with letters, the word of that animal, object or person is written. With the help of the teacher, their classmates or parents, they will write it on a sheet of paper. Then with the use of movements and memory they will name them in order of appearance. Each sheet of paper can be exchanged by their classmates. They must memorize them and express them in order..	- Images of animals. - Images of objects or people. - Sheets of white paper or index cards. -Pencil, paper, colors.	Formative. Summative: Performance levels rubric.

Discussion

It is evident that early education teachers in the area of PE have a moderate and low level of knowledge in the management of socio-educational strategies, with 50% almost never using techniques, methods and resources, 33% sometimes, and 17% almost always. All the techniques, methods and resources lack the intervention of the rest of the socio-educational actors such as the family and the community to advance in the proposed purposes. This is contradictory to what is expressed by Vásquez et al. (2019), when they point out that socio-educational strategies are processes that include the use of a set of techniques, methods and resources where all socio-educational actors (teachers, family, peers and community) intervene, in order to respond to problems, strengthen skills and capacities.

According to the perception of the study by Balsells et al. (2019), they state that socio-educational strategies provide answers to different educational needs, expanding social and cognitive opportunities for individuals and the collective in everyday life. Where PE teachers, within their pedagogical practice, are conservative, traditionalist and mechanistic, so that currently a PE teacher is required to manage learning environments in an intentional and participatory manner where activities that seek motor, cognitive and social development are combined.

Studies show that the implementation of new strategies or proposals for the participation of socio-educational actors contribute to improve teaching and learning of students at the different levels in which they are applied, in this regard Giné and Parcerisa-Aran (2014), emphasize that socio-educational strategies are based on offering the teacher's accompaniment to the learner so they can be able to recognize and enhance the capabilities and skills in which they have weaknesses and these can be transformed and strengthened in the behavior for making favorable decisions and consequently develop adequately in the context in which they live.

The implementation of socio-educational strategies within the school context drive the development of actions that promote the personal and collective well-being of those who participate in them, because they allow them to interact effectively with others, develop thinking skills such as memory and imagination, control of feelings and emotions, and, decision making in pressure situations (Núñez et al., 2018). That is why socio-educational strategies can contribute to physical motor development to improve not only the physical but also the integral health of the learner (Peñafiel-Álvarez et al., 2020).

On the other hand, the study of psychomotor skills

through the observation sheet by the teachers to the students showed that 13% always develop, a body image scheme, body perception, visual-motor coordination, 17% almost always develop laterality, adequate postural tonic control, 42% sometimes present dissociation in dynamic, spatial coordination, balance, intrapersonal sense, and emotional control, 28% almost never share their knowledge and express themselves with total freedom, subtracting the development of self-concept, self-esteem, respect and acceptance of norms, recognition of emotions and communication with others. it is shown that the relational-affective factor is moderately worked which hinders the development of motor harmonious thinking, due to the fact that the student has not overcome difficulties, which is fundamental to develop as an indispensable component in the psychomotor competence since it reflects the progress of the learning process (Camargo & Maciel, 2016).

Thus, students present a moderate and low psychomotor competence, which is counterproductive because it neglects the development of thinking, as well as a little motor practice that contributes to sedentary lifestyles and the emergence of chronic diseases, mainly obesity as reviewed by Zapata Galarza & Ramirez Ponce (2020) and De Lima et al. (2016), who claim that the combination of regular physical activity with a diet rich in antioxidants, including proteins, vegetables and fruits can prevent obesity and improve the quality of life of individuals.

This confirms, as stated by Vásquez et al. (2019), the great influence of activities for the development and mastery of movements in students, which, together with good nutrition, contributes to the good growth of the student, favoring affective, intellectual, social and physical development. In this way, it is relevant to incorporate socio-educational strategies whose nature requires integration and collaboration of the closest individuals in students' lives and that have a direct impact on personal development. Therefore, early education institutions should carry out this type of strategies more regularly to enhance the psychomotor development of the learner (Gonzalez-Cutre, 2017).

For this reason, psychomotor competencies are of great importance because they reflect the cognitive, affective, social and motor skills of the individual in formation, these are expressed in the social context where they develop. In this sense, psychomotor competencies focus on the individual as a whole, so they can show integrity when required to respond to favorable or unfavorable situations. From the teaching perspective, a pedagogical practice lacking socio-educational strategies that promote in its totality the cognitive, motor and socio-affective area becomes boring and monotonous, so it needs changes in the current educational system and programs, where all socio-educational interveners require enhancing psychomotor skills as a different way of working, executing elements that align the individual with their body, with objects, with space, with others and communication (Rodríguez et al., 2017).

In this sense, the mediation of the PE teacher, with the group under study has not been significant, because it privileges a traditionalist, mechanical, behaviorist teaching, limiting itself to the use of techniques, methods and resources only in the classroom, where it does not involve the participation and collaboration of family and community which requires changes to a directed and experienced education.

In this way, it is urgent to develop psychomotor skills that make it possible to have progress in learning that influences communication, development, responsiveness in situations in which it is necessary to decide to give solutions, also to build attitudes and values that influence the personal maturity of the learner. This is why there is a need to propose socio-educational strategies that promote meetings with parents and the community in general to monitor (Adamo et al., 2016; Cools, DeMartelaer, Samaey & Andries, 2011), support activities that leave learning both inside and outside the classroom for the development of psychomotor skills in early childhood education students who, feeling supported and motivated, are better able to achieve their purposes, since emotions assist thinking (Barrantes-Elizondo, 2016).

In this sense, the teacher must employ strategies that intervene in the teaching process, facilitating the acquisition of competencies that make students feel protagonists of their learning by interacting with their peers, family members, the environment in which they live, objects and information (Arévalo, De la Cruz-Sánchez, & Feu, 2017). The socio-educational strategies plan will facilitate the development of psychomotor competencies through participatory and individualized learning, due to the fact that they will learn with independence, others with support and at their own pace.

Conclusions

It is concluded that teachers of Initial Education in the area of PE have moderate and low knowledge in the management of socio-educational strategies. All techniques, methods and resources need the intervention of the family and the community to progress in the fulfillment of educational objectives. Socio-educational strategies are intended to respond to problems, strengthen skills and capacities with the help of all socio-educational interveners.

Likewise, the psychomotor skills observed by teachers towards students showed a moderate and low level of psychomotor skills in students, the lack of mastery of activities and actions that does not facilitate the comprehensive development of the student, the poor development of psychomotor skills It harms and hinders advances in thinking, the expression of emotions and feelings, relationship with others and the development of movements and strengthening their muscle structure. As a result of this there is a need to propose socio-educational strategies for the development of psychomotor skills in third-level students of initial education, so that students, through collaboration, strengthen their skills, emotions, knowledge of their body, strength,

balance, postural and spatial control, opportunities that Socio-educational strategies offers because they are essential for the future development and performance of the student in the different facets of his life. In addition, the proposal is a pedagogical tool for initial education teachers in the PE area.

Education is evolving every day due to the continuous technical and social changes that have occurred in society, in view of this, the initial education teacher in the physical education area should not continue with the same usual teaching methodologies, in the present the traditional model focused on behavioral pedagogy must go from a repetition of actions and words to another that stimulates participation and intervention for the development of psychomotor skills that leave significant learning to the initial education student.

References

Adamo, K., Wilson, S., Harvey, A. L., Grattan, K. P., Naylor, P.-J., Temple, V. A., & Goldfield, G. S. (2016). Does Intervening in Childcare Settings Impact Fundamental Movement SkillDevelopment? Medicine and Science in Sports and Exercise,48(5), 926-932. doi: 10.1249/MSS.0000000000000838.

Arévalo, F., De la Cruz-Sánchez, D., & Feu, S. (2017). La influencia de los padres e iguales en la realización de actividad físico-deportiva de los escolares de educación primaria. E-balonmano. com: Revista de Ciencias del Deporte, 13(3), 263-272.

Aristizabal-Almanza, J., Ramos-Monobe, A., y Chirino-Barceló, V. (2018). Aprendizaje activo para el desarrollo de la psicomotricidad y el trabajo en equipo. Revista Electrónica Educare, 22(1), 1-26. https://doi.org/10.15359/ree.22-1.16

Balsells Bailon, M.A., Urrea Monclús, A.,Ponce Alifonso, C., Vaquero Tió, E. y Navajas Hurtado, A. (2019). Claves de acción socioeducativa para promover la participación de las familias en procesos de acogimiento. Educación XX1, 22(1), 401-423, doi: 10.5944/educXX1.21501

Barrantes-Elizondo, L. (2016). Educación emocional: El elemento perdido de la justicia social. Revista Electrónica Educare, 20(2), 1-10.

Barreto, O.C. (2018). Las causas que afectan el desarrollo motriz fino y grueso en los niños y las niñas de transición de la IE San Luis Gonzaga. Tesis de Licenciatura en pedagogía Infantil. https://repository.unimi-nuto.edu/bitstream/10656/10093/1/UVDT.EDI_Barreto Ram%C3%ADrezOfeliadelCarmen_2018.pdf

Camargos, E. k., y Maciel, R. M. (2016). La importancia de la psicomotricidad en la educación de los niños. Revista científica multidisciplinaria base de conocimiento. 1(9), 254-275.

Cigarroa, I., Carla Sarqui, C., y Zapata-Lamana, R. (2016). Efectos del sedentarismo y obesidad en el desarrollo psicomotor en niños y niñas: Una revisión de la actualidad latinoamericana. Revista Universidad y Salud, 18(1):156-169.

Cools, W., De Martelaer, K., Samaey, C, & Andries, C. (2011). Fundamental movement skill performance of preschoolchildren in relation to family context. Journal of SportsSciences, 29(7), 649-660. doi: 10.1080/02640414.2010.551540.

de Lima-Motta, V. W., Medeiros-de Morais, C. M., Torres-de Paiva, G., Barbosa-de Oliveira, L. C., Medeiros, M., & de Santos-Morais, P. C. (2016). Etapas de disposición para cambio comportamental relacionados con el estilo de vida de los adolescentes con sobrepeso y obesidad. Razón y Palabra, 3(94), 680-694.

Franco, E., Coterón, J., Martínez, H. A., y Brito, J. (2016). Perfiles motivacionales en estudiantes de educación física de tres países y su relación con la actividad física. Suma Psicológica, 24(1), 1-8. doi: 10.1016/j.sumpsi.2016.07.001

García González, A. J., & Froment, F. (2018). Beneficios de laactividad física sobre la autoestima y la calidad de vida de personas mayores Benefits of physical activity on self-esteem andquality of life of older people. Retos, 33, 3–9

García-Marín, P., y Fernández-López, N. (2020). Asociación de la competencia en las habilidades motrices básicas con las actividades físico deportivas extracurriculares y el índice de masa corporal en preescolares. Retos, 38, 33-39.

Giné Freixes, N., y Parcerisa-Aran, A. (2014). La intervención socioeducativa desde una mirada didáctica. Edetania. Estudios y Propuestas Socioeducativos, (45), 55-72. https://revistas.ucv.es/index.php/Edetania/article/view/172

González-Cutre, D. (2017). Estrategias didácticas y motivacionales en las clases de educación física desde la teoría de la autodeterminación. Revista de Educación, Motricidad e Investigación. (8), 44. doi: 10.33776/remo.v0i8.3268

Hurtado de Barrera, J. (2000). Metodología de la investigación holìstica. Fundación Sypal. Venezuela. https://bit.ly/3FOoMfS

Lavega, P; March, J; & Filella, G. (2013). Juegos deportivos y emociones. Propiedades psicométricas de la escala GES para ser aplicada en la Educación Física y el Deporte. Revista de Investigación Educativa, 31(1), 151- 165.

López Pastor, V. M., Pérez-Brunicardi, D, Manrique, J. C y Monjas, R. (2016). Los retos de la Educación Física en el Siglo XXI. Retos. 29, 182-187. https://doi.org/10.47197/retos.v0i29.42552

Luis-de Cos, G., Arribas-Galarraga, S., Luis-de Cos, I., & Arruza Gabilondo, J. A. (2019). Competencia motriz, compromiso y ansiedad de las chicas en Educación Física (Motor competence, commitment, and anxiety in girls during physical education classes). Retos, 36, 231–238. https://doi.org/10.47197/retos.v36i36.64243

Mendiara-Rivas, J., y Gil-Madrona, P. (2016). Psicomotricidad Educativa. Sevilla: Wanceulen. https://wanceuleneditorial.com/shop/psicomotricidad-educativa/

Muñoz-Arroyave, V., Lavega-Burgués, P., Costes, A., Damian, S., & Serna, J. (2020). Los juegos motores como recurso pedagógico para favorecer la afectividad desde la educación física (Traditional games: a pedagogical tool to foster affectivity in physical education). Retos, 38, 166–172. https://doi.org/10.47197/retos.v38i38.76556

Núñez, C., Hernández, V., Jerez, D., Rivera, D. y Núñez, M. (2018). Las habilidades sociales en el rendimiento académico en adolescentes. Revista de Comunicación de la SEECI, 47, 37-49. Doi: 10.15198/seeci.2018.47.37-49

Peñafiel-Álvarez, J. L., Ochoa-Encalada, S. C. y Heredia-León, D.A. (2020). Estrategias didácticas de la Educación Física para desarrollar la motivación en estudiantes de Educación Escolar. Revista Killkana Sociales. 4 (2), 61-66. https://doi.org/10.26871/killkanasocial.v4i2.615

Pons, R., y Arufe, V. (2016). Análisis descriptivo de las sesiones e instalaciones de psicomotricidad en el aula de Educación Infantil. Sportis Scientific Technical Journal, 2 (1), 125-146.

http://revistas.udc.es/index.php/SPORTIS/article/view/sportis.2016.2.1.1445/pdf_37.

Rodríguez Milián, A., Moré Estupiñán, M., y Gutiérrez Pairol, M. (2019). La Educación Física y la educación para la salud en función de la mejora del rendimiento físico de los estudiantes. Universidad y Sociedad, 11(1), 410-415.

Rodríguez Torres, A. F, Rodríguez Alvear, J. C, Guerrero Gallardo, H. I, Arias Moreno, E. R, Paredes Alvear, A. E, & Chávez Vaca, V. A. (2020). Beneficios de la actividad física para niños y adolescentes en el contexto escolar. Revista Cubana de Medicina General Integral, 36(2), e1535.

Rodríguez, M. T., Gómez, I. M., Prieto-Ayuso, A., Gil-Madrona, P. (2017). La educación psicomotriz en su contribución al desarrollo del lenguaje en niños que presentan necesidades específicas de apoyo educativo. Revista de Investigación en Logopedia, 7 (1), 89-106 . http://www.redalyc.org/articulo.oa?id=350851047005

Roig Hierro, E., Guillem Molins, M., & Batalla Flores, A. (2022). Actividad física puntual y memoria motriz, los elementos de la interacción: Revisión Scoping (Punctual physical activity and motor memory, the elements of interaction: Scoping Review): Revisión Scoping. Retos, 45, 410–421. https://doi.org/10.47197/retos.v45i0.92382

Romero, S. J., Ordoñez, X. G., y Gil-Madrona, P. (2018). Development of the Checklist of Psychomotor Activities for 5- to 6-Year-Old Children. Perceptual and Motor Skills, 125(6), 1070-1092. doi: 10.1177/0031512518804359

Ruiz, L.M., & Linaza, J.L. (2013). Jerome Bruner y la organización de las habilidades motrices en la infancia. RevistaInternacional de Ciencias del Deporte (RICYDE), 34,390-397.

Ruiz-Pérez, L. M., Rioja-Collado, N., Graupera-Sanz, J. L., Palomo-Nieto, M., & García-Gil, V. (2015). GRAMI-2: Desarrollo de un test para evaluar la coordinación motrizglobal en la educación primaria. Revista iberoamericana de psicología del ejercicio y el deporte, 10 (1), 103-111

Sáez Sánchez,M.B., Gil Madrona, P., y Martínez López, M. (2021). Desarrollo psicomotor y su vinculación con la motivación hacia el aprendizaje y el rendimiento académico en Educación Infantil. Revista de educación. 392 , 177-20.

SEP. (2011). Programa de estudio 2011. Guía para la educadora. Educación básica preescolar. México. https://es.slideshare.net/Pilill/programa-de-estudio-2011-gua-para-la-educadora-educacin-bsica-preescolar

Vásquez Giler, Y., Carrillo Farnès, O., Pérez Cardozo, C.N., y Arjona Vásquez, O. (2019). Influencia de estrategias de intervención educativa en el estado nutricional de adolescentes de la comunidad Cerro Guayabal. (2019). Revista San Gregorio. (31), 1-12.

Viciana Garófano, V., Cano Guirado, L., Chacón Cuberos, R ., Padial Ruz, R., y Martínez Martínez, A. (2017). Importancia de la motricidad para el desarrollo integral del niño en la etapa de educación infantil . EmásF, Revista Digital de Educación Física. 8(47), 1-17. http://emasf.webcindario.com

Vilaú Díaz, L. Á., Rodríguez Pérez, L., Rivera Oliva, R., & Amarán Valverde, J. E. (2012). Plan de actividades físico-recreativas para ocupar el tiempo libre en jóvenes desvinculados del estudio y el trabajo. Revista de Ciencias Médicas de Pinar del Río, 16(3), 62-81.

Zamorano, M., Gil, P., Prieto, A., & Zamorano, D. (2018). Emociones generadas por distintos tipos de juegos en clase de educación física. Revista Internacional de Medicina y Ciencias dela Actividad Física y el Deporte, 18(69), 1-26.

Zapata Galarza, M. V., & Ramírez Ponce, D. Y. (2020). La promoción de la actividad física para disminuir el sobrepeso en niños. Podium. Revista de Ciencia y Tecnología en la Cultura Física, 15(1), 153-165.

Zueck Enríquez, M. del C., Ramírez García, A. A., Rodríguez Villalobos, J. M., & Irigoyen Gutiérrez, H. E. (2020). Satisfacción en las clases de Educación Física y la intencionalidad de ser activo en niños del nivel de primaria (Satisfaction in the Physical Education classroom and intention to be physically active in Primary school children). Retos, 37, 33–40. https://doi.org/10.47197/retos.v37i37.69027

Datos de los/as autores/as:

Pedro Erick Gastelum-Acosta	erickgastelum@uas.edu.mx	Autor/a
Daniel Ramón Acosta López	danielacosta12@hotmail.com	Autor/a
Giovanni Isaí Ramírez Torres	giovanni.ramirez@uas.edu.mx	Autor/a
Arturo Iván Chávez Erives	achavez@uach.mx	Autor/a
Gabriel Gastélum-Cuadras	gastelum@uach.mx	Autor/a
Araceli Véjar Torres	aracelivejartorres@gmail.com	Traductor/a

Annex 1
Survey for teachers

Encuesta para los estudiantes-docentes
Estudiante: _____

Competencias motrices						
Dimensión	Descripción	Opciones de respuestas				
		S	CS	AV	CN	N
Psicomotora	1) ¿Observa en el niño la habilidad de saltar?					
	2) ¿Observa en el niño el agarre de tijera y recorte?					
	3) ¿Observa en el niño la lateralidad?					
	4) ¿Observa en el niño la coordinación de sus movimientos?					
	5) ¿Observa la ejecución motriz en el niño?					
	6) ¿Observa en el niño el control tónico postural?					
	7) ¿Observa en el niño el control respiratorio?					
	8) ¿Observa en el niño equilibrio en sus movimientos?					
Perceptivo-motora	9) ¿Observa en el niño el desarrollo de la orientación espacial?					
	10) ¿Observa en el niño Disociación motriz?					
	11) ¿Observa en el niño coordinación viso-motriz?					
	12) ¿Observa en el niño imagen corporal?					
Afectivo- relacional	13) ¿Observa en el niño emociones (Alegría, miedo, sorpresa, tristeza, culpa, seguridad, enfado)?					
	14) ¿Observa en el niño la expresión del sentido intrapersonal?					
	15) ¿Observa en el niño conocimiento de su ubicación y de lo que hace?					
	16) ¿Observa en el niño expresiones gestuales y orales?					
	17) ¿Observa en el niño las relaciones sociales con su entorno?					
	18) ¿Observa en el niño la expresión del sentido interpersonal?					

Estrategias Socioeducativas						
Dimensión	Descripción	Opciones de respuestas				
		S	CS	AV	CN	N
Recursos	1. ¿Hace uso de ilustraciones para el desarrollo del pensamiento en los niños?					
	2. ¿Hace uso de letras para el desarrollo del pensamiento y el lenguaje en los niños?					
	3. ¿Hace uso de letras para el desarrollo del pensamiento y el lenguaje en los niños?					
	4. ¿Hace uso de pelotas para el desarrollo motriz en los niños?					
	5. ¿Hace uso de fichas para armar que fortalezca el desarrollo motriz en los niños?					
	6. ¿Hace uso de cuerdas para fortalecer el desarrollo motriz en los niños?					
	7. ¿Hace uso de globos para fortalecer el desarrollo motriz en los niños?					
	8. ¿Hace uso de cuentos para el desarrollo del pensamiento y el lenguaje en los niños?					
	9. ¿Hace uso de vídeos musicales para el desarrollo del pensamiento, el lenguaje y motriz en los niños?					
	10. ¿Hace uso de canciones para el desarrollo del pensamiento y el lenguaje en los niños?					
Métodos	11. ¿Empleas acompañamiento para fortalecer habilidades motrices?					
	12. ¿Empleas el trabajo en grupo para fortalecer habilidades motrices?					
	13. ¿Empleas la asignación de tareas en el aula para el desarrollo del pensamiento, el lenguaje y la habilidad motriz en los niños?					
	14. ¿Empleas el descubrimiento guiado con los padres y niños en el aula					

	para el desarrollo del pensamiento, el lenguaje y la habilidad motriz?					
	15. ¿Empleas la enseñanza reciproca en los niños en el aula para el desarrollo del pensamiento, el lenguaje y la habilidad motriz?					
	16. ¿Empleas la resolución de problemas para el desarrollo del pensamiento, el lenguaje y la habilidad motriz?					
Técnicas	17. ¿Hace uso de la exposición para el desarrollo del pensamiento y el lenguaje en los niños?					
	18. ¿Hace uso de manipulación de objetos juntamente con los padres para el desarrollo del pensamiento, el lenguaje y motriz en los niños?					
	19. ¿Hace uso del salto para el desarrollo motriz en los niños?					
	20. ¿Hace uso del balanceo para el desarrollo motriz en los niños?					
	21. ¿Hace uso de lanzamiento para el desarrollo motriz en los niños?					
	22. ¿Hace uso de la recepción para el desarrollo motriz en los niños?					
	23. ¿Hace uso del trabajo colaborativo con padres y miembros de la comunidad para el desarrollo del pensamiento, el lenguaje y motriz en los niños?					
	24. ¿Haces uso de la hora guiada con los padres para el desarrollo del pensamiento, el lenguaje y motricidad en los niños?					