



## Psychomotor development and motor skills in learning in children from 1 to 3 years old



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### Abstract

The research aimed at the psychomotor development and motor skills in learning in children from 1 to 3 years old and to develop a plan of stimulation activities in the Bejuco Hacha child development center, of the Santa Rita parish. of Canton Chone, who show difficulty in their motor skills, in order to avoid future problems at the time of entering school and respond adequately to the demands set forth by the educators, having as the main cause the care protocol of the center, the systematization of what educators have to do in the areas, axes and areas of development and learning, skills, learning objective, with the purpose of developing an adequate teaching-learning process. The method used was the scientific method, information collection instruments were applied such as surveys, observation sheets and interviews, the results presented reached. It was possible to verify that the children in the age of 1 to 3 years of the CDI of Bejuco Hacha of the broken site the Bejuco, present a good psychomotor development, fulfilling in the activities that were carried out under the guidance of the educators and support of the parents of the family.

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## 1 Introduction

The child development center (CDI), the Bejuco Hacha of the Santa Rita parish of Chon Canton, presents difficulties in psychomotor development and motor skills in learning in boys and girls from 1 to 3 years old; addition, they need to develop a plan of stimulation activities, which help to mitigate these difficulties, in order to avoid future problems at the time of entering school. One of the difficulties observed is that they do not respond adequately to the demands set forth by the educators, with the main cause being the attention protocol in the CDI, the systematization of the activities that the educators must carry out in the areas, the axes and areas of development, learning, skills and their objectives, in order to develop an adequate teaching-learning process.

Psychomotricity is a discipline in charge of the integral development of people through their body and their movements, which must be developed in the first years of life to guarantee a correct acquisition of skills and learning, which will serve for the motor development of boys and girls (Aguilar & Huamani, 2017). In the field of the problem there is evidence of a group of factors that hinder psychomotor development, which are mainly focused on incorrect early stimulation due to the lack or scarce didactic material required to carry out the appropriate strategies, which due to lack of resources are not incorporated into the stimulation tasks, and potentiate the motor skills, additionally, the little or scarce cooperation of the parents in this process, due to the importance of their intervention, considering that they are the main caregiver of the children and girls in their first years of life who spend most of their time with them and can contribute to their motor stimulation (Wang et al., 2010; Calzo et al., 2012).

From the experience of the teachers of the child development center, that motor development is also achieved with adequate and balanced nutrition, which includes the consumption of minerals, protein and carbohydrates. The first two years of a child's life are especially important, since optimal nutrition during this period reduces morbidity and mortality (Pan American Health Organization, 2018), as well as the risk of chronic diseases and improves development general (Secretary of Health, 2015). A malnourished boy or girl will not be able to adequately develop any of their skills or competencies, limiting the acquisition of skills, evident in their motor agility and a delay in their physical growth, so psychomotricity is a neuroscience that transforms harmonic motor thinking psychomotor education that is the starting point for the learning process of children (Evenson et al., 2013; Ding et al., 2011).

Commonly, if the child has a learning disability, it is the result of some deficiency in psychomotor development (García, 2016). The child who presents constituted psychomotor development can hardly present problems in writing, reading, towards graphics, in the distinction of letters, in the order of syllables, in abstract thought and grammatical analysis, logic, among others (Fernández, 2007), in addition, motor development is also achieved through play, the child sees the need to share with his other peers, although the opposite position is a collaborative relationship. This interface exposes the potential of the participants, affecting their emotions and tests essential skills for their future professional performance, such as attention, affection, the habit of staying focused and other aspects of perceptive psychomotricity (Anne, 2016).

To determine how psychomotor development influences learning skills in children from 1 to 3 years of age, observation of their work must be achieved, as part of the knowledge of the problem. For the development of the research, the quantitative method was used, inductive and deductive, with this it was possible to establish a process in which it was possible to know that motor activities and good nutrition develop good learning. Psychomotor education with children must provide essential basic training in their motor, emotional and psychological development, giving the opportunity so that through games and movements that they carry out in the educational center, in addition to the appropriate skills, through these activities they develop their perceptual skills as a means of adjusting psychomotor behavior. Within this same aspect, the practice of activities based on play and fun stands out, because it is a way for children to learn in a satisfactory and effective way. The playful context is important for the socialization of people in their first years of coexistence, the game serves to build skills and engage in a motivating, pleasant and planned environment for early childhood education (García, 2016).

What has been stated by different authors about psychomotor development and motor skills in learning in boys and girls from 1 to 3 years old, it should be stated that they need to maintain good nutrition, play games and recreational activities that help in early stimulation, This is how they are accessing to have a greater awakening in their imagination, a better development of creativity, encouraging them to discover and use intelligence individually; In addition to experiencing the environment where they are, discovering their own personality through psychomotor development, since it is necessary for them to learn to know themselves, others and the environment, through which they will experience new things that will be of great relevance in their future, but that it is also necessary to put them in contact with cultural and moral values, so that they foster respect and honesty. Psychomotor development (Pierrot-Deseilligny et al., 2003; Serradj & Jamon, 2007).

The acquisition of skills that is observed in the child continuously throughout childhood, corresponds both to the maturation of the nervous structures (brain, spinal cord, nerves and muscles) [Mendoza \(2018\)](#), as well as the learning that the baby, then the child -does discovering himself and the world around him, these are motor skills ([Toasa Cobo, 2015](#)).

The motor area contemplates everything related to movement, the first reactions of the newborn have a motor character and are evident through their reflexes. These automatic and unconscious responses that over the months will lose their character, to become deliberate responses or behaviors. In this way, the movement becomes a great pillar of learning effectiveness and intellectual development. Exercise is the result of motor development, which is the basis of integral human development, because it is a dimension that is closely related to the development of the cognitive, perceptive, physical, emotional, and somatic sensations aspects of the human being. Intelligence such as control of body movement and the ability to manipulate objects ([Luna et al., 2016](#)).

Motor skills is a vital and complex process, resulting from genetic and environmental influences, which involve changes in the movement, postures, and positions of people throughout life. It is interrelated not only with physical growth, but also with cognitive development and social development ([Larrey et al., 2019](#)).

According to other authors, it is the area that studies the changes in human motor skills from birth to old age and the factors that intervene in these changes, as well as the relationship with other areas of behavior ([Mendoza, 2018](#)). to motor development, as the progressive changes in motor behavior throughout the life cycle, caused by the interaction of the required movement tasks, the biology of the individual and the conditions of the learning environment ([Gallahue et al., 2016](#)).

This process, which involves the progressive acquisition of motor skills that allow adequate postural control, movement, and maintenance of manual dexterity, is divided into two parts: total motor development that occurs in the craniocaudal direction and is associated with changes in body position, and the ability to control them to maintain balance, posture, and movement that allows head movement ([Glaser et al., 2015](#); [Abubakar et al., 2008](#)). sit, crawl, walk, jump, run, climb stairs, etc. unsupported. Fine motor development that occurs distally and is associated with the use of individual body parts such as the hands, with this skill you will be able to pick up and manipulate toys, shake things, cover and cover things, grasp very small things, rotate them, write, etc. until reaching more complex levels where eye-hand coordination is required ([Medina, et al., 2015](#)).

## 2 Materials and Methods

The research was of an exploratory level, since they examined the problem from which many doubts have arisen ([Hernández & Fernández, 2016](#)), and to investigate the psychomotor development and motor skills in learning in the children of the Bejuco CDI Ax of the Quebrada the Bejuco site of the Chone canton, taking into account that it was a little studied topic in this site and that it should be addressed for a better understanding, a bibliographic review was carried out, books and magazines of scientific content were accessed for the bases theory of it ([Méndez, 2018](#)). In addition, a field investigation was carried out, because the study site was visited to carry out the application of the data collection instruments directly from the protagonists of the object of study.

The method used was the scientific method that corresponds to the procedures in which the hypothesis is tested ([Tamayo, 2017](#)), since it was a methodological and systematized research process with a theoretical foundation and a verifiable process. The techniques that were applied were: the survey, which served to obtain important information and that will be made to the parents in order to describe their contribution in the development of motor tasks; interviews with the educators and coordinator of the CDI, to determine the teaching material they use for the development of motor skills; an observation sheet for the children to determine their level of psychomotor development and another sheet to evaluate eating habits in the physical growth of boys and girls. The population consisted of 36 children, 30 parents and 4 educators from the CDI, Bejuca Hacha. Being a small population, 100% of it was taken as a sample.

## 3 Results and Discussions

The results obtained from the applied instruments helped to know what activities are carried out to achieve good psychomotor development and motor skills in learning in boys and girls. Figure 1 shows the most relevant topics in the treatment of the study.

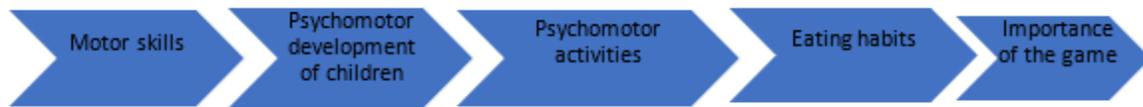


Figure 1. Subjects further study

The analysis of the instruments applied (observation sheets aimed at children and the interview with the educators and coordinator of the CDI of Bejuco, Hacha), were structured based on the concepts previously indicated, exposing the following results of the survey in the case of related to adequately developed their motor skills. According to the data collected, it was found that the parents stated that their child has adequately developed their motor skills; being an advantage since in this way better learning and skills are obtained in the activities they carry out, which serves as a basis for when they begin their studies in an educational institution (Chan et al., 2009; López-Alonso et al., 2014).

It is a favorable result, which was evidenced in a hundred percent, which reflects the great ability that boys and girls are developing thanks to the activities that their educators carry out with them within the CDI. Motor development, as the progressive changes in their behavior throughout the life cycle, caused by the interaction of the required movement tasks, the biology of the individual and the conditions of the learning environment, which are achieved with the activities covered in infants, sharing this opinion with the authors (Gallahue et al., 2016). Parents were consulted about their children's motor development, the results are shown in figure 2.



Figure 2. Parents' criteria about their children's motor development

The person who assists the child in motor activities reflects a large percentage, which demonstrates the consolidation in its maturation process, which determines according to data the development of psychomotor skills and abilities, maintaining coherence between age and its integral development, as well as reflecting the results with the guidelines established in the activity plan for to this end, Table 1 shows the recommendations that parents receive from their children's educator.

Table 1  
Educator recommendations to parents

Aspect	Frequency	Percentage (%)
Play interactive games at home	3	8
Use the teaching materials they make for fine motor skills	21	59
Games to enhance gross motor development	12	33

As observed in use the didactic materials that they elaborate for fine motor skills, significant adults work more with fine motor skills, there being an imbalance with games to enhance motor development, which implies working more on that for psychomotor development, and with this affirm motor skills like running, jumping, throwing object, grabbing something, etc.

Psychomotor development according to [Mendoza \(2018\)](#), expresses that it is the acquisition of skills that is observed in the child continuously throughout childhood, it corresponds both to the maturation of the nervous structures (brain, spinal cord, nerves, and muscles) and learning. that of the baby, then as a child, he discovers himself and the world around him. Motor skills according to ([Toasa Cobo, 2015](#)), what is observed in table 1 does not contradict, rather it affirms the work of educators with infants. In table 2, the ways in which the family environment favors the development psychomotor.

Table 2  
Ways in which the family environment favors psychomotor development

Alternatives	Frequency	Percentage (%)
Shows attention to the child in a comprehensive manner	21	59
The environments are conducive to their growth	12	33
Complete families	3	8

The statistics revealed by the parents, It is possible to understand the usefulness of the didactic materials in the development of the children's skills, having an objective comparison point and when the material is used according to the one assigned by the tutor, this has a greater development, being focused on a 59%; However, without leaving other criteria, the materials, the interactive games, the eating habits, among others, are components that demonstrate the importance of the boy or girl having a significant adult in their development.

The data obtained show the high degree of attention to the child in an integral way in the family environment. The environments are conducive to their growth and development, sharing the data in figure 3, which shows the motor skills that children must develop. Showing how favorable it is for infants to have their adequate family environment, where psychomotor development is conducive to their growth and development, so that, by having a safe environment, the child's emotional state is also stable, in this sense Parents, when working with children, contribute significantly to the infant's motor skills ([Velásquez et al., 2022](#)).



Figure 3. Motor skills of the child

The motor skills that infants establish and that is reflected in learning, is evidenced in the child's ability to coordinate movements of the extremities and segments of the body to achieve a specific goal, and in high-skill behaviors, movements that require sensory cognitive and motor activities, carried out by an action as shown in the results observed in a practice with children. In the study carried out, all those activities shown in figure 3 were fulfilled, such as recognizing oneself, defining its laterality, maintaining balance, coordinated movements, and other activities related to balance and coordinated movements, such as body games such as jumping, run, throw, roll, the guide of the boys and girls helped them to carry out activities such as: walking on tiptoes, heels, squatting, jumping; cartwheeling forwards and backwards, kicking a soccer ball, where they showed that they can do it normally, executing each one of them with enthusiasm and determination, demonstrating that they also often took the initiative to play with others. This allowed verifying that children from 1 to 3 years old have good motor skills that help them in their learning, as defined by (Medina et al., 2015), the process that involves the progressive acquisition of motor skills that allow maintaining adequate control. postural, movement and manual dexterity.” posture that is achieved when the family environment is favorable.

The research showed that parents have interest and motivation to support their children, because they have been able to observe that they adequately develop their motor skills in the activities they carry out and even when they are at home; receiving with interest and putting into practice the recommendations given by the CNH educators, to which they are integrated into the motor tasks that they send their children to do, supported by materials from the environment that they have been able to carry out with the help of the educators or guides, because they emphasize that the materials of the medium are much better to elaborate them and to carry out the activities with their children; considering in this way that the accompaniment that children have represents a high percentage in their motor development. Parents are aware of the activities that are carried out with their children, making this generate a great potential to continue with daily tasks and it is achieved that children develop with confidence and learn every day, experiment new things and become familiar with their environment, which is what helps them the most in their psychomotor development.

The motor skills in the learning of the boys and girls from 1 to 3 years of age from the CDI Bejuco Hacha of the Quebrada El Bejuco site are really positive, because they have learned to develop activities quickly in a surprising way, both in their perceptive capacity and their motor skills such as moving, running, jumping, jumping, standing on one foot, holding objects in their hands, helping to identify which laterality is the most inclined for their activities. The knowledge of psychomotor development and the observed activity, is relevant, because its identification presupposes basic knowledge of the development of the central nervous system, since psychomotricity represents the domain that every boy and girl must possess to coordinate their movements well, improve their abilities, making them mature with

their genetic potentialities and with the intervention of the educators and the support of their parents at home, they build their own identity and gradually discover the world of objects through movement.

When evaluating the eating habits that help in the motor development of boys and girls, it was possible to identify and verify that the CDI complies with the proper feeding standards for them, because they maintain a set breakfast schedule, then the snack, to move on to their lunch, which is made up of a balanced diet that also favors their nutrition; Likewise, they receive a snack in the afternoon before going home and once at home, their parents complement this process by giving them their dinner or snack at the time that should be received by the boys and girls.

It should be considered that nutrition and motor development have a great relationship between growth and feeding because the maintenance of organic functions is essential that children from their first years of life consume food in adequate amounts, because their body or organisms does not receive enough nutritional substances, it can negatively generate nutritional problems such as malnutrition and more severe cases such as anemia; For this reason, good nutrition and food represent an effective tool to promote health and prevent diseases in children

#### **4 Conclusion**

It was found that the children between the ages of 1 and 3 years of the CDI of Bejuco Hacha of the Quebrada el Bejuco site, present a good psychomotor development, fulfilling the activities that were carried out under the guidance of the educators and support of the parents of the family managed to carry them out according to what was indicated to them, being something very favorable since it is necessary that at this age they can already recognize each one of the parts of their body that also served to reflect the positive results, it was possible to verify that they know how to define their laterality, recognizing each of their sides (right and left), that is, it was identified which side they use to carry out their daily activities, which influences their matrix and learning processes, identifying the spatial structures of letter symbols from their earliest years of learning. Remembering also that they preserved stability and remained in a proper posture, that is, they have learned to control their body.

##### *Conflict of interest statement*

The authors declared that they have no competing interests.

##### *Statement of authorship*

The authors have a responsibility for the conception and design of the study. The authors have approved the final article.

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