Motor Development in Writing and Playful Movements in Elementary School Students

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Abstract---The research aimed to analyze the motor development in writing and playful movements in the students of the elementary school of the UE Manabí of the Chone Canton for the 2021-2022 school year., this presents situations that affect motor development, such as delay in developing and manipulating objects, such as scratching, cutting and drawings, these deficiencies cause delays in writing, as well as in recreational activities, being the responsibility of teachers and parents, the methodology used had a quantitative approach, for which the synthetic analytical deductive inductive methods were used and statistics, in addition to bibliographic consultations and data collection for which interviews with parents were applied, observation sheets to students, surveys to teachers, as a demonstrative class to students, with a population of 69 students and the sample of 34 students. The result was that motor skills are necessary for writing, and the development of playful movements and these aspects improves learning in the education of students.

Keywords---motor development, playful movements, students, writing.

Introduction

The motor problem in writing and playful movements was detected from 2020-2021, it was worrying because it causes a setback in children's education, mainly because of their low economic resources which lead to them not receiving a complete education, so they do not adequately develop their motor improvement. Motor development in writing improves playful movements. The study is based on the theories proposed by (Almeida, 2021), makes it clear that fine motor skills are essential for good writing (Petrona, 2019), it can be found that recreational activities have also been studied as the expression of the development of fine and gross motor skills (Efdeportes, 2021), in this context it is proposed that if there is no adequate coordination and mobility of the parts of the body, it will be difficult for the child to manipulate or carry out pedagogical activities.

In situations that affect development, such as delay in developing and manipulating objects, such as scratching, cutting, drawings, etc. deficiency that cause delays in writing, as well as in recreational activities, is the responsibility of teachers and parents. For this, the following hypothesis was proposed:

In the province of Manabí, there is around 15% of schooldropouts (El Universo, 2021), many expect to receive cards at home and others prefer to drop out due to the economic situation, leaving large gaps in their lives. learning. “The Minister of Education, Monserrat Creamer, has recognized that 70% of students have difficulty accessing online education” (El País, 2020), having a huge impact on the learning of these children and the foundation they need to read, write and develop their skills.

Consequently, Chone is no exception and also presents these problems that trigger a low level of reading and writing in the children of the "Manabí' Educational Unit, as a consequence of a low, scarce or null level of motor development, given this reality, the study of strategies to stimulate motor development and playful movements in
writing is essential for the literacy process. These abilities and skills are achieved in the early years of preschool and high school and even in the second and third years of basic education, because by working on motor development and playful movements in children, they learn dynamically and with a high level of attention, for relaxing theory with practice, since infants learn more by playing and having fun in the classroom, reflecting on their academic practice, that is, they become aware that letters are represented by sounds and the union of sounds form syllables, words, phrases and sentences. With motor development and playful movements, the child will acquire a clear and fluid reading comprehension, which will allow the construction of new knowledge (Aucapiña & Collahuazo, 2014).

One of the causes that are affecting the essential motor development for writing is the way teachers work, which often do not apply active methodological strategies, and even more so at the age of 3 to 7 years, in which they are in a very high level of restlessness, as well as the energies to accept what the environment offers them, and that according to (Castro & Silva, 2015) proposes that this should be thought at a very early age to achieve significant learning in them, and of agreement (Aucapiña & Collahuazo, 2014) expresses that "motor development and playful movements in learning to write". He argues that at this age, 3 and 7 years old, innovative activities should be proposed that teachers should use for motor development and playful movements for learning to write. In this sense, it is important to specify that "motor development and playful movements is the metalinguistic ability that allows us to reflect on oral and written language and refers to the ability to identify the sublexical units of words, that is, syllables, intrasyllabic units and phonemes" (Gutiérrez & Diez, 2018). Thus, this is a reflexive ability in children to understand words through sounds.

For (Núñez & Santamarina, 2014), "motor development is defined as: The ability to reflect on the structural motor elements, formal components of oral language and manipulate them, therefore, it includes the ability to operate with the segments of the words, that is, segmenting the smallest units, such as syllables, sounds, phonemes and intrasyllabic units (motor analysis), while having the ability to create new higher units from these isolated smaller segments (motor synthesis)". (p. 86)

From school, the challenge includes, in the first instance, the development of the level of motor skills of children, since it will depend on this, according to (Márquez & De la Osa Fuentes, 2003), the knowledge and success that they will have later in tasks related to the recognition, identification and differentiation of phonemes and the rules of the language that governs them in their possible combinations, to form syllables and words.

Similarly, (Jamet, 2006), considers it essential to take into account the degree of intrasyllabic sensitivity that schoolchildren present at the age of 6 and a half, since it could become a predictor of phonemic ability, (Solsona et al., 2005), with proper training, and how they relate it (Michalczyk et al., 2013) in specific tasks concerning the components of working memory.

The characterization of motor development includes the "development of skills such as: rhyme detection, syllable identification, matching of initial sounds and phoneme counting, comparison of the length of words and representation of phonemes with letters" (Bravo, 2002). This is how schoolchildren face these tasks and begin to develop skills to compare and "manipulate" these units and discover that they form words together and later recognize syllables. For Anthony & Francis (2005), if the educational model considers the early start of literacy or not and if it gives more value to writing tasks. Likewise, (Jimenez & Ortiz, 2007) describes it as "the metalinguistic ability that involves the ability to reflect on and manipulate the structural segments of spoken language" (p.23).

Motor development can be understood as that awareness that each person has about their language that reflexively discriminates the patterns of correspondence between letter and sound, which are implicit in the reading and writing process, which also include the analysis graphemic, the assignment and assembly of phonemes, as described (Cuétos, 2011). "This further confirms the need to develop fundamental cognitive processes to interact with the teaching of writing and reading and consider the variables of each language" (Sastre et al., 2017). It is extremely important to adequately develop motor development and playful movements in the first years of life and schooling. The rate of progress in motor development is given by the joint influence of the processes of maturation, learning and external influences, we must study the methods and influences to explain how observable changes in motor behaviour occur (Smith, 2006; Von Hofsten, 2004).

In educational iatrogenesis, psycho-socio-pedagogical actions are carried out that generate negative effects on the child's learning at the primary level (Risueno-Motta, 2005). The objective of "Determining the relationship between the level of motor development and playful movements in the initial learning of writing in a bilingual educational institution", as well as proposed (Salas, 2019). In another investigation carried out by (Castro & Silva, 2015), he proposes a guide and this must be thought at a very early age to achieve significant learning in them.

Motor development and playful movements are fundamental processes for writing; which must be developed in the early years, following appropriate methodological strategies (de Koning-Veenstra et al., 2014). Children have little knowledge of the sounds of language, when they hear they perceive a chain of sounds, but they are not aware
that these can be divided into words, these into syllables and these into phonemes or sounds; therefore, the environment conducive to the understanding of playful movements are not created (Castro & Silva, 2015), a situation that is also echoed (Aucapiña & Collahuazo, 2014) in their work motor development and playful movements in the learning of the writing.

To propose innovative activities that teachers can use and children apprehend knowledge more reflectively, that is, they become aware that letters are represented by sounds and the union of sounds form syllables, words, phrases and sentences. With motor development and playful movements, the child will acquire a clear and fluid reading comprehension, this being responsible for what will allow the construction of new knowledge (Aucapiña & Collahuazo, 2014). In this sense, it is important to specify that "motor development and playful movements is the metalinguistic ability that allows us to reflect on oral and written language and refers to the ability to identify the sublexical units of words, that is, syllables, intrasyllabic units and phonemes" (Gutiérrez & Díez, 2018). Thus, this is a reflexive ability in children to understand words through sounds.

On the other hand, (Núñez & Santamaria, 2014), motor development is defined as: The ability to reflect on the structural motor elements, and formal components of oral language and manipulate them, therefore, it includes the ability to operate with the segments of words, that is, segmenting the smallest units, such as syllables, sounds, phonemes and intrasyllabic units (motor analysis), while having the ability to create new higher units from these isolated smaller segments (synthesis). (p. 86) so the development of the level of children's motor development, since it will depend on this, according to (Márquez & De la Osa Fuentes, 2003), the knowledge and success they will have later in related tasks with the recognition, identification and differentiation of phonemes and the rules of the language that govern them in their possible combinations, to form syllables and words. Similarly, (Jamet, 2006), considers it essential to take into account the degree of intrasyllabic sensitivity that schoolchildren present at the age of 6 and a half, since it could become a predictor of phonemic ability, which is also essential during the process. of learning to read and influence the growth of arithmetic skills, as proposed by (Solsona et al., 2005), with due training, and how they relate it (Michalczyk et al., 2013) on specific tasks concerned with the components of working memory.

The characterization of motor development includes the "development of skills such as: rhyme detection, syllable identification, matching of initial sounds and phoneme counting, comparison of the length of words and representation of phonemes with letters" (Bravo, 2002). For (Anthony & Francis, 2005), if the educational model considers the early start of literacy or not and if it gives more value to writing tasks. Likewise, (Jimenez & Ortiz, 2007), describes it as "the metalinguistic ability that involves the ability to reflect on and manipulate the structural segments of spoken language" (p.23).

Then, motor development can be understood as that awareness that each person has about their language that reflexively discriminates the patterns of correspondence between letter and sound, which are implicit in the reading and writing process, which, in addition, includes graphemic analysis, phoneme assignment and assembly, as described (Cuetos, 2011). "This further confirms the need to develop fundamental cognitive processes to interact with the teaching of writing and reading and consider the variables of each language" (Sastre et al., 2017). It is extremely important to adequately develop motor development and playful movements in the first years of life and schooling.

Writing and motor development form two of the essential pillars on which the construction of linguistic and social knowledge and know-how is based" (Arnáez, 2009). On the other hand, it is stated that "writing is a process and a strategy. As a process, it is used to approach the understanding of the text, while as a teaching-learning strategy, it focuses on the intrinsic interrelationship of reading and writing, and we use it as an integrated communication and metacognition system" (Huaraca, 2017). Interrelation, oral and written expression, and communication are skills that must be properly developed and therefore writing represents the basis for it. Galera (2009), goes a little further and gives great importance to a part of the language: writing. He states that "the basic tool to access knowledge and information, in general, is the understanding of what is written, reading" (p. 13). And that "written language, in addition to constituting a privileged means of communication and representation, is the main instrument to access the knowledge of the rest of the school subjects" (p. 16).

Caballeros et al. (2014), teaching motor development improves playful movements in writing and helps to increase the ability to spell and write letters. Motor development must be part of the teaching of writing in the classroom and must be completed with other elements. Writing constitutes two social and cultural practices, two abilities or skills to use, for which these basic processes are very essential for the child's learning within society (Cortázar, 2014), being these who exercise enormous power for the changes deep ones that are forged in individual conduct and in the community in which it is due to the writer.
**Materials and Methods**

The research had a descriptive level given narrating the circumstances in which the object of study was presented, in which motor development is essential to have good writing, supported by studies that other authors speak on the subject, what it allowed the review of sources of information, articles, theses and books, implying coordination of our thinking; the narrative has obtained the collection of information with the help of the instruments used, in which it was possible to identify the technical and scientific criteria that allowed a systematic study from personal experience, obtaining the result of motor development and its influence on writing, its playful movements in the students of elementary basic (Ureta-Mendoza & Mantilla-Vivas, 2022).

**Analysis and Discussion of the Results**

Motor development in writing and playful movements in elementary school students is a topic that calls for reflection by teachers and parents due to the importance they have for the integral growth of children. Starting as a starting point, knowing the methodology that teachers apply for motor development, and observing in the classroom the level of skills of the students the results are shown in Table 1.

<table>
<thead>
<tr>
<th>Aspects</th>
<th>Yes</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The learning environments have conditions according to multiple</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>intelligences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>With their students, they chop, grate, corrugate, etc.</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>Incorporates other alternative methods in its teaching process for</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>motor development.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Works on the comparison and manipulation of objects, colors,</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>shapes, laterality, etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All of the above</td>
<td>10</td>
<td>50</td>
</tr>
</tbody>
</table>

Source: Teachers of the educational unit

These results show that teachers carry out strategies to adapt children in learning, the importance of understanding how to develop the motor part of students, which is very essential for writing and reading, (Márquez & De la Osa Fuentes, 2003), this will help the knowledge and success they will have later in tasks related to the recognition, identification, differentiation of phonemes and the rules of the language that governs them in their possible combinations, to form syllables and words, which is why 50% use or prepare work environments. They use techniques such as cutting, grating and corrugating, incorporating alternative methods, as well as working on the comparison and manipulation of objects, colors, shapes, and laterality (Regehr et al., 2013; Kaparounaki et al., 2020). Comparing with what it expresses” (Bravo, 2002). The personalization of motor development contains the development of skills such as rhyme detection, syllable identification, matching of initial sounds and phoneme counting, comparison of the length of words and representation of phonemes with letters, a task that cannot be separated by teachers at this level. Figure 1 shows the use or not of the strategies carried out by the children (Phonapichat et al., 2014; Köğce et al., 2009).
It is important to see the behaviour of each of the activities developed by the children, motor development is at the elementary level by 56%, which implies that not all infants reach the desired level, however, by not developing other tasks such as drawing and painting, and how to use crayons, tempera, brush, stamping correctly; It makes us suppose the level of the infants on this, that 56% do not achieve it either, which represents a degree of development with difficulty to attend as a priority; In addition, it is surprising that, of the children observed, only 56% carry out recreational activities and it is worrying that, at this age, there are infants who do not join these activities very naturally in them, which represents 54%, knowing that the Playful activity is part of human nature, because the child is game-oriented and also associates pleasure, recreation and joy (Morante & Vargas, 2019).

During childhood, recreational activities have various benefits, however, the child carries them out to have fun and interact, while playing, cognitive aspects intervene, which favours their natural development, in the same way, it requires movements, so it is It benefits motor skills and lastly it has a social component because it requires interaction, even when you do it alone, you practice socializing (Ferris, 2004; Bitchener et al., 2005).

Then, motor development can be understood as that awareness that each person has about their language that reflexively discriminates the patterns of correspondence between letter and sound, which are implicit in the reading and writing process, which, in addition, includes graphemic analysis, assignment and assembly of phonemes, as described by (Cuetos, 2011), further confirms the need to deploy fundamental cognitive processes to interact with the teaching of writing and reading and consider the variables of each language” (Sastre et al., 2017). Being extremely important to adequately develop motor development and playful movements in the first years of life and schooling, in which teachers must intervene with a very good methodology, parents from their contribution and help at home and children from the degree of their age and the activities that they must develop both in the classroom and at home (Menon & Desmond, 2001).

Conclusions

The importance of motor development in writing and playful movements in elementary school students was evidenced, these have been affected, so the methodology applied must be improved, so that it reaches all children, in addition, these develop all the activities generated by the teachers in the classroom or outside it, the relationship
between motor development in writing with skills that favour playful movement with the contribution of parents in all processes was determined.

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References


