FUNDACIÓN CENTRO SAN JUAN DE JERUSALÉN

DESARROLLO DE HABILIDADES BÁSICAS PARA EL PROCESO DE ESCRITURA

QUITO - ECUADOR

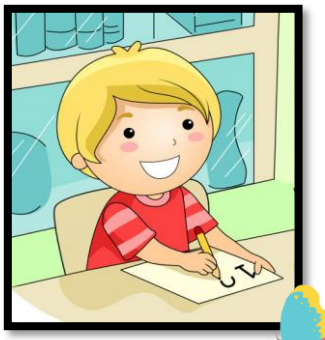
2020

EIGHTH CONVERSATION

SUBJECT: "Development of basic skills for the writing process"
DATE: Thursday, October 1, 2020
ADDRESSED TO: Early education teachers, educational psychologists, psychopedagogues and occupational therapists
Objectives:

- Describe the basic skills for the acquisition of writing and its development.
- Explain the importance of adequate stimulation for the writing process.
- Recommend playful activities to stimulate writing through play.

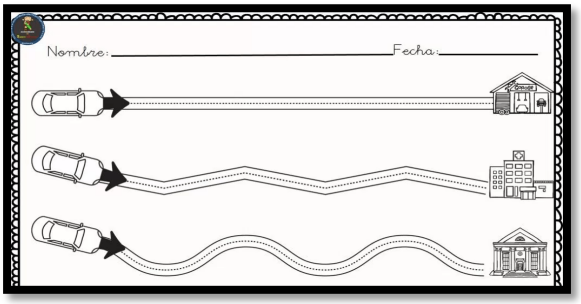
1. Graphomotor skills



We understand by graphomotor skills (graph: writing, motor: movement), the ability of the human being to make a line, from the simplest scribble to the writing itself. The child's graphomotor development has the main objective of completing and enhancing psychomotor development through different activities.

2. Pre-graphism

They are writing exercises with straight and wavy, horizontal, vertical, combined strokes, circles and loops. These are used to work on the grip of the pencil, visual-motor coordination and to promote the development of skills in hand and finger movements that allow progressive stroke control.



3. The Start of Writing

The proper development of the grip of the pencil for writing begins much earlier than you think. It begins from the moment the child begins to grasp objects with their hands, that is when they are already developing the future grip of the pencil.

❖ Stages

- Crude Palmar Grasp (3-5 months)

  - By 3 months, the baby should be able to grasp a rattle or other objects.
  - At 5 months, they reach objects with the whole arm using a crude palmar grasp (grasping objects with the palmar side of their hand). The thumb is not being used at this time.

- Palmar grasp (6 months)

The child will begin to use their whole hand to grasp objects, including some movement of the thumb.

The fingers press against the palm of the hand, rather than against themselves like in the rake grip

- Radial palmar grasp (7 months)

The child will begin to engage their thumb and all fingers, while using more of the thumb side of their hand to grasp objects or using a radial palmar grip.

- **Raking grasp (8 months)**

At 8 months, the child will begin to use a rake-type grasp, where the fingers, excluding the thumb, do all the work.

- **Radial digital grasp (8-10 months)**

Between 8-10 months of age, the child will begin to perfect their grip with a radial digital grasp and inferior pincer grasp.

- **Inferior pincer grasp (10 months)**

By the age of 10 and a half months, they should be able to use their thumb and index finger.

If more finger pads are holding the object than finger tips, it is an inferior pincer grasp.

- **Supinated palmar grasp (12-15 months)**

The whole hand is used to hold the tool and the movement comes from the proximal segments - the shoulder and arm move to move the hand. This is a static grip. The child uses their entire arm to color and move the marker to where they want on the paper. The pencil is at a full vertical angle.

- **Finger grasp in pronation (2-3 years)**

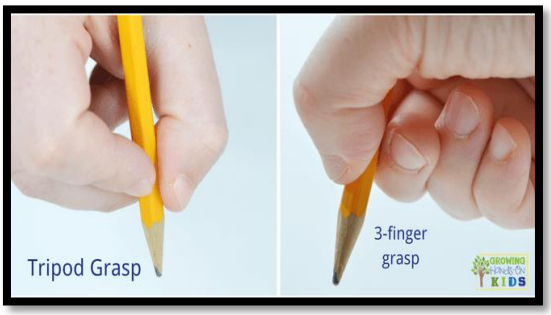
The fingers are now pointing down at the bottom of the writing utensil. However, all the fingers are being used in conjunction with a large number of movements of the whole arm: the fingers hold the tool, the shoulder begins to be more stable and the movements come from more distal segments (elbow and forearm).

- **Quadruped pincers (3-4 years)**

Movement comes from the wrist and hand, and there is greater stability in the shoulder and elbow.

Initially, it is a static grip although it can evolve and become dynamic.

This grip is also referred to as a 4 finger grip - 3 fingers being on the pencil and then resting on the 4th finger.



- **Three-digit pincer or tripod (5-6 years)**

Involves the forefinger, thumb and middle finger.

Initially, the three fingers work in a unitary way, to later mature into a dynamic tripod clamp.

❖ **Graphic Age**

Children develop graphic skills with age, just like motor development milestones, which is important for teachers, parents and therapists to know:

AGE	INDICATOR
18 months	Scribbling
24 months	Vertical Stroke (copy)
30 months	Vertical and Horizontal Stroke (copy)
3 years	Closed Circle (copy), cross start
3 years 6 months	Cross and Oblique Lines (copy)
4 years	Square with Rounded Angles (copy)
4 years 6 months	Square (copy)
5 years	Triangle (copy)
5 years 6 months	Triangle (no copy)
7 years	Copy a Rhombus

4. Evaluation Areas

The occupational therapist must evaluate the child's abilities to perform different activities; the ability to develop these activities is determined by the development of motor and cognitive skills.

Example: ability to draw a square, which implies skills such as praxia, vision, visual-manual coordination, grasp, spatial structure, gnosis.

- Global Motor Skills
- Fine Motor Skills
- Visomotor Coordination
- Spatial Structuring
- Vision (Oculomotor Skills)
- Laterality
- Gnosis
- Praxias

❖ Fine Motor Skills

Fine motor skills are the coordination of small muscle movements which occur in parts of the body such as the fingers, usually in coordination with the eyes.

The stimulation of fine motor skills in children in their early years is of great importance since it allows them in the future to have good grip handling (good handwriting) and perform precise movements in their daily lives. This stimulation can take place both in the classroom and at home.

- Activities to stimulate fine motor skills

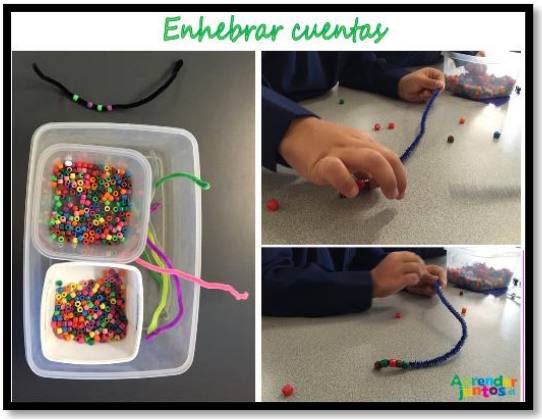
- Put a key in a lock and open it
- Can use scissors to follow and cut straight and curved lines
- Can manage buttons, zippers and snaps completely
- Can draw and copy a cross (a vertical and horizontal line that intersect)
- Can hold the fork with their fingers
- Folds the paper in half.
- Flipping objects in their hands (again, blocks, rings, other favorite toys. Introducing new and novel toys will also encourage them to explore and turn that object in their hands to find out more about it)
- Stack cubes or blocks.
- Draw with crayons
- Tighten, button up.

❖ Visual Motor Coordination

Is the capacity to precisely adjust body movements as a response to visual stimuli. Should be developed in the first 5 years of a child's life; it corresponds to the pre-school level to facilitate activities with assorted materials and objects.

The child in the Pre-school stage first develops writing with drawing, scribbling. Then they begin to differentiate drawing from writing, they begin to write with loose letters.

- Activities to stimulate:



- Hand-eye coordination games
- (throw-catch balls, hoops, small objects).
- Ocular-motor coordination games
- (hitting, receiving, driving with feet).
- Games to perfect grip
- (place and order objects, finger plays)
- Games to appraise weight and volume

Evaluation of the different disorders associated with ocular motility: problems with gaze strategy (visual fixation, following, exploration, field and anticipation) and associated pathologies (Strabismus, alteration of Optokinetic Nystagmus) in children who present risk factors for neurological damage.

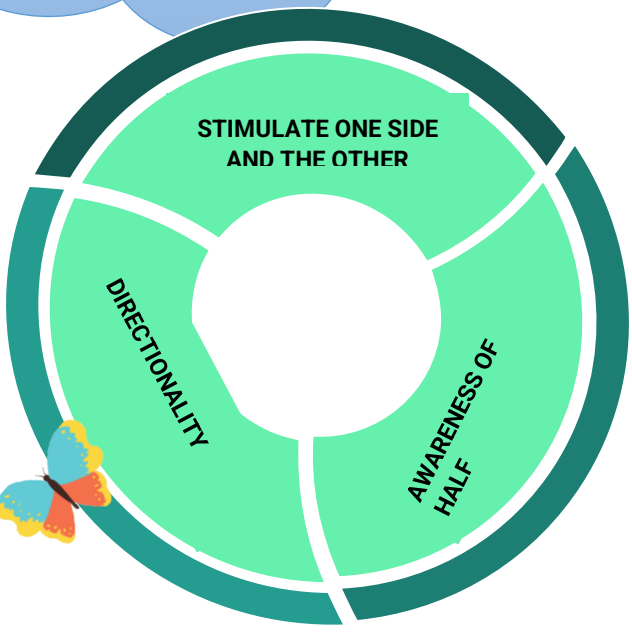
Intervention in this area enables us to properly stimulate ocular movements, since gaze strategies (visual fixation, following, exploration, field and anticipation), are closely related with learning, for example, as the processes of reading and writing

❖ Laterality

Laterality is the preference we all have to use one part of our body, it is not only limited to the use of the hands and extremities, the same also happens with the ears and eyes; it is important that when the children gets to (6 years) they have acquired their lateralization.

Firstly, they should respect the preference when the child "chooses" to write with the left or right hand; moreover, once they've chosen, try not to change the side, given that writing practice generates cortical pathways that are hard to change and could bring with them difficulties.

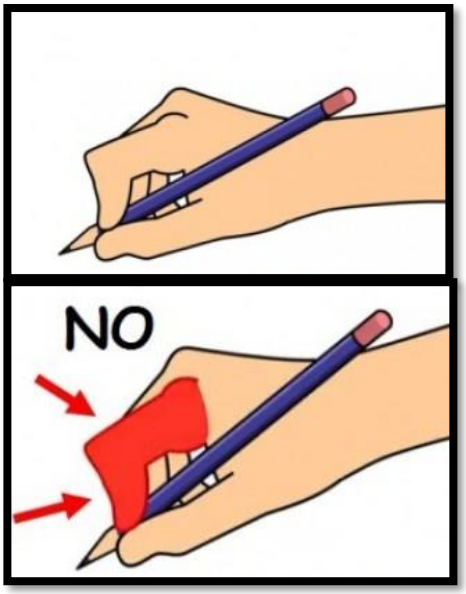
Finally, keep in mind that left-handed children will require special equipment (left-handed scissors, left-handed table-arm chair).

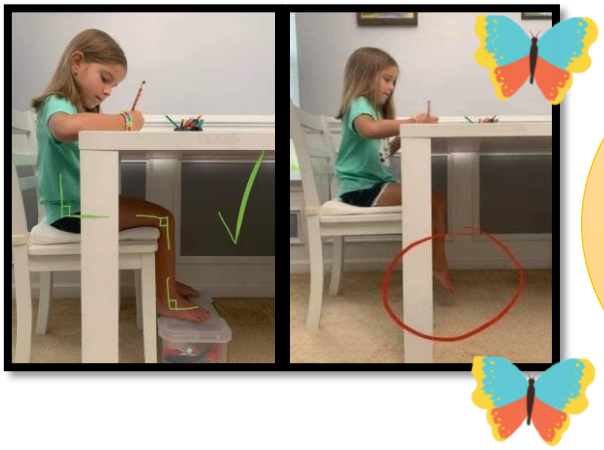


❖ Posture

- Correct positioning of the fingers

  - The pencil or pen is held between the thumb and the index finger and is supported on the middle finger.
  - The instrument should be held in such a manner that it permits the child to have a good view of what they are writing on the page.
  - The hand which isn't writing should hold the page so that it doesn't move
  - The hand which is writing should move from left to right on writing.





Recommendations

- Sit at the back of the chair
- Feet should be on the floor
- Forearms should be supported on the table.
- The position of the arms and legs should be relaxed
- Distance of 30cm from the paper and 60cm from the computer

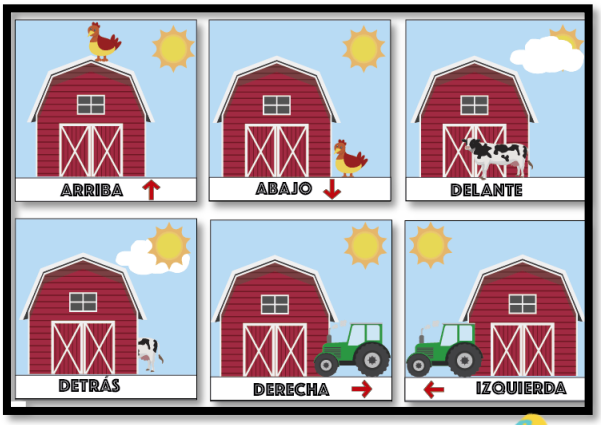
❖ Visual Perception

Is the capacity to interpret the information our eyes receive from the visible light spectrum. The result of the interpretation that our brain makes about this information is what we know as visual perception, visual perception is stimulated by the following aspects:

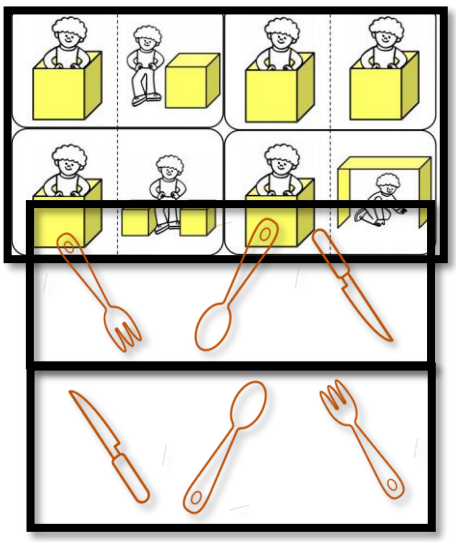
- Hand-eye coordination
- Position in Space
- Copy
- Background Figure
- Spatial relations
- Visual Closure
- Visual motor speed
- Constancy of form

❖ Spatial structuring

Spatial orientation and structuring present themselves as two fundamental pillars, which should be considered integrally throughout the teaching process since, for the schoolchild, they make the movement possible with which they can organize space. Without a doubt, they constitute the basis of later learning. "Spatial Structuring" is necessary to differentiate between the three concepts with the aim of facilitating comprehension of the theme, these are, spatial orientation, spatial structuring as a whole, and spatial organization.



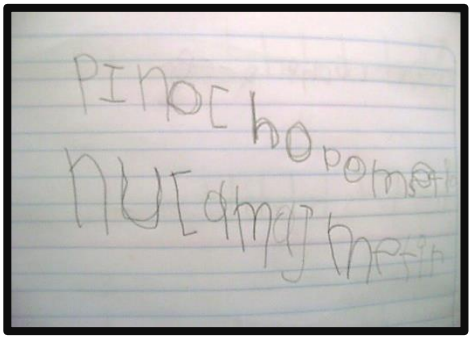
Development of spatial structuring should be done respecting the following order:

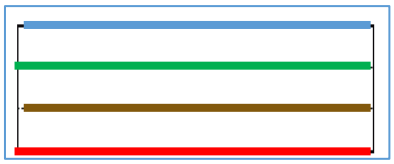


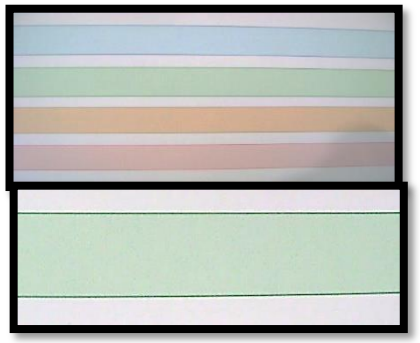
- **Spatial Orientation**
  - Activities recognizing spatial positions.
  - Notions of space in your own body
- **Spatial organization**
  - Activities recognizing spatial relations in space.
- **Spatial structuring**
  - Activities exploring space
  - Body- space

- **Re-education of visual and spatial perception**

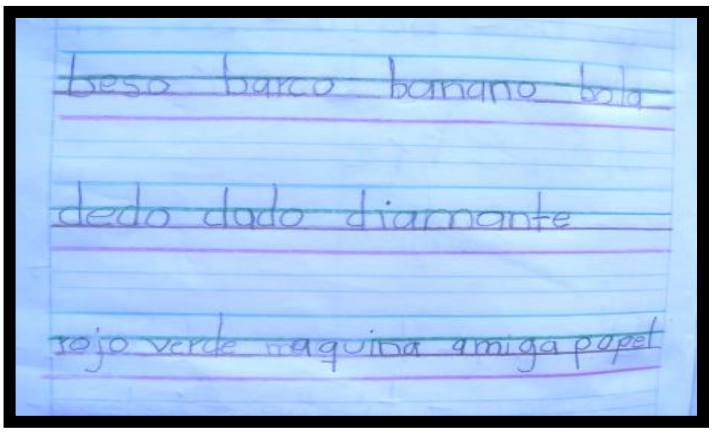
Leslie mentions that in children with visual-spatial difficulties it is common to see disorganized writing, where the child does not follow the lines on the page, the letters vary in direction from left to right, up and down, also they write with letters of different sizes







- One method which facilitates their spatial positioning within the natural limits of writing without using clearly spatial endings
- We will begin working on familiarization of the colors we will use, related with nature and experiencing them.
- We only work using grass green and earthy brown lines with short graphic marks.
- First we work with color to give greater spatial reference and then we remove it.
- Afterwards, we raise the top line for the letters can go upwards and lower the bottom line for the features that go downwards.



5. Beginnings of writing

❖ Work on vertical surfaces:

- Contributes significantly to the maturation of the trunk stabilization process.
- Improves the extension of the wrist and grip of the pencil.
- Improved stability in the shoulders and elbows
- Improved bilateral coordination
- Capacity to cross from the centre line
- Improve visual field and visual attention

❖ Stability and extension of the wrist:

- The position of the hand helps the movement of the fingers

❖ Writing and rhythm:

- It corresponds to the learning of reading and writing of a line, a letter or a word.
- To carry out exercises in the air in front of himself.
- The body accompanies each line.

❖ Graphic training.

- To practice the movement from left to right, with several writing instruments and with different rhythms: smooth, slow, fast, etc.

6. Technical aids

They are tangible adaptations, required by a person to compensate for difficulties or alterations in graphism.

- **Writing adaptors:** They improve the pressure, execution and speed to help to make lines.

- **Furniture adaptations:** tables with angled blackboards can be used which improve the visual field and the child's attention.