



## THE ROLE OF MENTAL SPORTS IN ACTIVATING THE NERVES CENTERS AND ACHIEVING THE PSYCHOLOGICAL HEALTH FOR THE CHILD

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### Abstract:

Most programs and educational curricula work on taking kids to different levels of education, as well as to levels of mental and cognitive health. Thus, the one who looks on those curricula may find that those curricula are not free from any matter. Sports and its different activities, though it doesn't have the sufficient timing, that we want from our intervention to prove the importance of sports, which makes it a necessary generalized and spread matter in the other educational sessions without neglecting its right. We want to show its effects on the mental and cognitive health, not from the old classical studies view, but from what the modern studies achieved in the neurology that depended on the innovative ways and methods that subdued the behavior to the magnetic resonance in order to recognize the changes happening in the nervous system by the sports. We also show the role and effects of the sports movements, on the neuroscience, during trainings according to brain gym and how it is possible to treat the learning difficulties through sports starting from reading, writing and arithmetic difficulties.

**Key words:** deaf, interest, multimedia based learning

### 1. Introduction

Brain gym or what is called learning through movement or the mental sports; it is a set of fast movement activities that lead to a general activity. They were created to help in thinking and moving, learning noticing, focusing, retention, and how to make balance

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in the body. It is noticed that they basically rely on crawling, drawing, designing forms in air and drinking water.

We will try to present the various concepts and fundamentals adopted in kinesthetic education to better understand their applications in the field of psychology.

### **1.1 Definition of kinesthetic education**

It is a set of procedures that include kinesthetic and respiratory exercises and massage of the centers or points of energy in the body. As well as drinking water and supporting the body in order to increase the pumping of the oxidized blood to the brain and increase the speed of nerve impulses between its hemispheres to make them work together efficiently which leads to improvement of the performance (Iyad Shalout, 2010).

It is also seen as a group of the kinesthetic exercises that basically work on activating the two hemispheres of the brain in order to work together effectively. Thus, they increase the speed of nerve impulses and the nervous signals from the brain to the kinesthetic limbs, as well as increase the speed of nerve impulses between both hemispheres of the brain, which leads to increase in the kinesthetic efficiency and mental capacities. (Education Kinésthésique Brain Gym, 2004).

It is worth pointing out that this technique is directed to those who suffer from difficulties in focusing, reading and writing, remembering and harmonizing, organizing and controlling stress and anxiety, and adapting to new situations (Brain Gym Belgium)

### **1.2 Principle of kinesthetic education**

Among the most important principles on which the kinesthetic education stands is the idea of the existence of a special relation between the emotions, muscles and some other organs in the human body. Thus, the strength of a particular muscle (muscles) can stop because of a particular disease (organs) or due to stress reasons such as negative thoughts and emotions.

However, the kinesthetic education bases on the principles of the Chinese medicine, which represent from the fact that the body is a means for transporting the energetic impulses, as well as it involves many particular paths and points of intersection, so that if the energy can pass freely and in a balanced way, then the concerned organ will be healthy. (Die Andere Medizin, sans année.)

### **1.3 The fundamentals of kinesthetic education**

We can distinguish four fundamentals on which we base in achieving the goals of kinesthetic education, they are as the following:

#### **A. Positive**

Which means making positive changes for the kid through doing some movements and also using positive expressions.

#### **B. Activity**

Doing activities and movements and expressing them by expression in the present.

### **C. Clarity**

Just one simple sentence is much enough to make the kid able to understand the goals we want through his performance of the movements, so the expressions we use with him should be clear.

### **D. Energetics**

Through using motivating and exciting words and activities for the energy of the child (Gail et Denison, 2007)

### **E. Dimensions of the kinesthetic education**

Kinesthetic education has three dimensions:

#### **a) Lateral/ communications: right-left**

This dimension includes the awareness of body laterals and communicating with them, thus it bases on the middle line and the corporal intersections that happen during the performance of the movements. That what relates the left side with the right side of the body, so that relating the two hemispheres of the brain, this relationship is called: right-left-lateral. Concerning the communication in this dimension, it is due to that fact that the activities here require the intervention of many phenomena in order to treat the verbal information and express the self in non-verbal way. This side serves the competencies and abilities that require visual synergy (eyes), hearing (ears) and general movement. (Gail et Denison, 2007). Some difficulties that may happen in case of imbalance of lateral/communication dimension:

- Kinetically depressive or hyperactive behavior.
- Language disorders.
- Difficulties in attention.
- Difficulties in understanding.
- Difficulty in installation and connection (Marie Anne Saive, 2009)

#### **b) Centering/ organization: up-down**

This dimension is specific to the regulation of the upper and lower parts of the body as well as the brain. However, concerning the spontaneous reflex Reponses for the external threats (the body encounters), they are compensated by making radial decisions. This all is due to the organization process that is the axis of this dimension. (Gail et Denison, 2007). Some difficulties that may happen in case of imbalance of centering/organization dimension:

- Poor regulation, especially with regard to temporal and spatial concepts.
- Confusion.
- Difficult to know and / or express feelings for the individual.
- Feeling of an emotional overload and inability to release it.
- Distraction and inability to pay attention (Marie Anne Saive, 2009)

#### **c) Focusing/ comprehension: front-back**

This dimension includes the understanding of the senses: which means that the person is able to use one sense of the senses (or more) while maintaining the performance and continuity of higher cognitive processes, for example: the ability to focus all attention as well as the ability to use sense of Sight at the same time. (Gail et Denison, 2007). Some

difficulties that may happen in case of imbalance of focusing/comprehension dimension:

- Make great efforts without satisfactory results.
- Difficulties in physical intersections appear through:
  - Poor coordination and synergy at the body level.
  - Inversion of the letters are similar.
  - Difficulties in reading, writing and math.
  - Problems in communication, expression and listening (Marie Anne Saive, 2009)

The importance of these dimensions for the human is represented in the fact that the performance of any movement or activity requires the immediate and consistent use of all dimensions. Thus, if imbalance occurs in their integration and consistency, imbalance in movement will also occur, which leads to the occurrence of imbalance in the natural balances, as well as increasing difficulties in facing the new situations.

Therefore, adaptation, focusing, comprehension, remembering, reading, writing or counting(math) all become painful and exhausting tasks and even impossible. (Marie Anne Saive, 2009)

From this point of view, it is possible to say that kinesthetic education is one of the methods or techniques that may contribute to a significant reduction in education as taking into account the above three dimensions, as well as performing movements that require all the body parts in purposefully and systematically way.

## **2. Goals of kinesthetic education**

Among the goals that kinesthetic education targets, we have:

- Achieve visual kinetic synergy by performing the following activities: drawing, reading, listening, and arithmetic.
- Perform movements that require all the body, such as: walking, jumping, running, dancing, driving, sports.
- Role-play: As an example: in-depth contact with a friend, dialogue through speech in the framework of friendship.
- Working in noisy places: focus on work and personal space, regardless of what is unhelpful (noise and disorder).
- Playing Piano: Enjoy music, feel the locks of the musical instrument (piano), and read musical notes at the same time.
- Playing Tennis: Keep looking on the ball and track it at the same time (Gail et Denison, 2007).

## **3. Exercises of kinesthetic education**

The exercises and activities of kinesthetic education are many and varied according to the goal they serve and the dimension to which they belong. They are classified into

four main axes: midline exercises, physical stretching exercises, energy exercises, meditation and deepening applications.

### A. Midline exercises

They are exercises that are achieved through the focus on the central line of the body that relates right and left, so that the two hemispheres of the brain. They include eleven exercises:

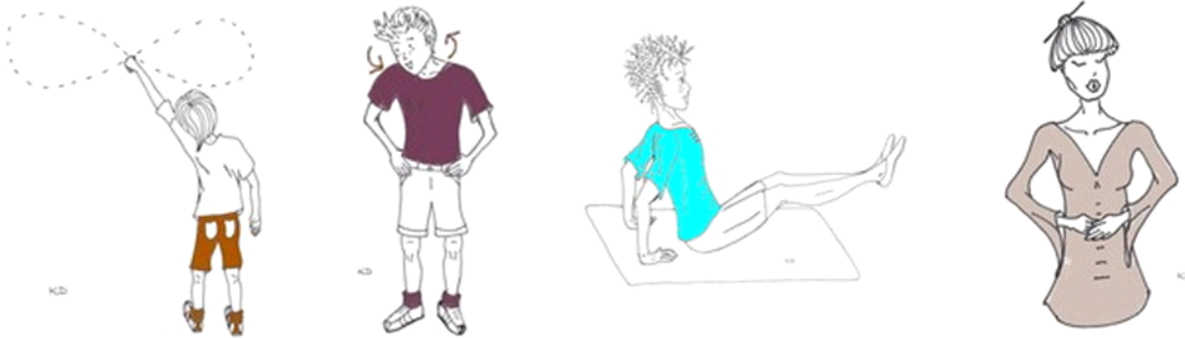


**Body intersection**

**The sleeping eight**

**Writing on the mirror**

**Eight with letters**



**The elephant**

**Rotating the neck**

**Swinging**

**Diaphragmatic**



**Abdominal  
exercises**

**The  
dynamizer**

**Thinking and imagining  
the letter "X"**

These exercises serve the following goals:

- Activate the two hemispheres of the brain to work simultaneously.
- Help the eyes to cut the central line and facilitate the reading and writing.

- Contribute to the improvement of laterality and help in feeling of the center of the body and left and right sides.
- Improve visual synergy.
- Release attention.
- Improve breathing and relaxation.

### **B. Physical stretching exercises**

These exercises work on stretching the different muscles of the body; we find six exercises in it:



**The owl**



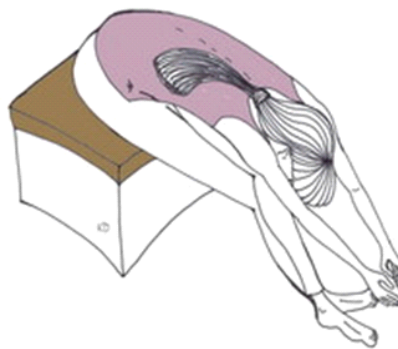
**Arms exercises**



**Swinging the foot**



**The muscle of the leg**



**The glider**



**Feet on the ground**

These exercises target the following:

- Release the stress resulting from work.
- Improve both hearing and memory.
- Stretch and relax the muscles of the rib cage and shoulders.
- Reduce stress.
- Improve the communication process.
- Verbal and written expression.
- Improve comprehension and focusing.
- Balance.

- Increase the body stability.
- Increase flexibility.
- Increase synergy.

### C. Energy exercises

They are exercises that work on releasing the energy in the body, and we find seven activities in them:



**Drinking  
water**



**The points of energy in  
the brain**



**Rooting  
points**



**Balance  
points**



**Space  
points**



**Energetic  
yawning**



**Opening  
the ears**

These exercises aim at:

- Increasing the concentration.
- Stimulating the internal ear.
- Helping the eyes to move horizontally and vertically.
- Helping on improving and bringing the energy and blood to the brain.
- Helping the person to hear his own voice better.

### D. Meditation and deepening applications

They are applications that increase the ability of meditation and deepening, we find in them each of the following:



**Cross-connection**



**The positive points**



**The positive points**

They target the following:

- Allowing concentration and releasing the excess of energy.
- Reducing stress.
- Raising the level of attention and self-esteem.
- Assisting in passing examinations.
- Giving a positive direction to the person. (Gail et Denison, 2007)

#### **4. Benefits of kinesthetic education**

The modern researches in the neuropsychology field have proven that the use of the kinetic movements and playing are considered one of the most effective ways that support the continuity of learning process for the kid and they allow him to acquire knowledge in a flexible way. Among their benefits:

- Stimulating the sensory system.
- Activating the ability to learn.
- Facilitating the connection between the brain's hemispheres.
- Improving information processing.
- Adjusting the level of energy in the body.
- Enabling the child to control the emotions through all their activities.
- Improving attention process.
- Reducing rushing.
- Improving concentration, organization and communication.
- Supporting the development of the ability to read, write and count.
- Improving fine movements (fine muscles) and general movements (large muscles)
- Duplicating self-confidence and self-esteem for the child.
- Improving motives and supporting positive thinking. (Mary Jo Wagner, 2009)

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