

Co-funded by the Erasmus+ Programme of the European Union

# 3A approach: Listen, Analyse, Act...



### Introduction to the course

Each re-educational methodology takes into account a specific neurophysiological study and consequently is organised on specific criteria that take into account the diversity and uniqueness of the child/young person with whom one works.

In the educational approach of the Three A's it is fundamental not to bind oneself strictly to an educational method but to consider the effects generated on the individual, starting from the need to readjust the teaching to the personal and social potential of the pupil.

Readjusting teaching methods means placing at the centre of teaching and learning not so much mere scholastic content, but the stimulating function that such content can play.

The aim of the course is to transform the classroom into a context of integration, of full mutual acceptance of diversity, capable of generating educational and social learning.

It is therefore intended to present a re-educational and didactic method based on three MAIN ELEMENTS: Listen, Analyse, Act.

#### Objectives

- Support the teaching staff in the implementation of personalised educational interventions.
- To deepen the Functional Diagnostic Assessment as an essential element to support the planned activities.
- To implement new communication techniques aimed at networking between professionals.





ori Gioiosi

# what do we do?

Fiori Gioiosi is an association of social promotion set up in 2019 following a voluntary work experience started in 2011 at a meeting place of the Comunità Papa Giovanni XXIII. The aim of the association is to promote an inclusive mentality, where the disabled person and/or person in a situation of educational poverty is perceived and welcomed as a person who has rights for their own future. As a strategic element of promotion for a fair and just society, the association implements collaborations and partnerships with formal and informal educational agencies, ETS, associations, individuals and public bodies according to the principles of the UN Convention on the Rights of Persons with Disabilities. At the heart of the Association is the "CENTRO SOCIOEDUCATIVO FIORI GIOIOSI", an

At the heart of the Association is the "CENTRO SOCIOEDUCATIVO FIORI GIOIOSI", an inclusive centre for children with disabilities and typical development. The Association aims to implement independent life paths from childhood through a project shared with the family and every single actor involved in the daily life of the disabled person, in order to plan and work on the construction of life opportunities based on aspirations and desires. For this reason, specific workshops for disabled adults are active, structured to achieve full inclusion, according to the educational model of entitlement and capacitating action (the Personal and Social Autonomy Workshop, the Lifestyle Workshop and the Work Start Workshop).



# Module 1- Introductory Concepts

# **OPEN QUESTIONS**

- STUDY: we select and explore the pillars of socio-pedagogical science.
- \* TERMINOLOGY: we analyse basic concepts.





Father of humanistic psychology and of the helping relationship, with a psychodynamic orientation, he deepened his reflection on the quality of the relationship in counselling and psychotherapy, influenced by Otto Rank (a psychoanalyst who emigrated to America) and by the culture of research in the field at New York University. In the 70's, after numerous disappointments regarding the attitude of modern psychoanalysts in relation to his innovative studies, he dedicated himself to Meeting Groups, intensive experiences that started from the clear intuition, still current, that people are aware of their own inner solitude, due to the "masks" worn for their survival in an alienating reality. The Rogersian Encounter Group is an excellent opportunity to start throwing off the masks and look for moments of acceptance of oneself and others and of authenticity, feeling recognised in the phrase: "on becoming a Person".

#### https://youtu.be/89CESpTcoVU





An American physiotherapist, he was a pioneer in the treatment of brain-damaged children, developing, together with Carl Delacato, his own theory published in 1960. Doman was the founder and director of the Institutes for the Achievement of Human Potential, which are universally known and widespread in many countries. He is the author of countless books, and is well known to the Italian public, especially for his works:

"Leggere a tre anni. Children can, want to, must read. How to multiply your child's intelligence."



https://youtu.be/IDO53YeU64k



A Swiss biologist, psychologist and epistemologist, Piaget is remembered for having developed the 'Theory of the Cognitive Development of the Child'. He has been called 'Mr Child Psychology', the giant of developmental psychology, but he did not consider himself a psychologist. His main ambition was to build a bridge between biology and theory of knowledge.

https://youtu.be/vVfvXMu3mBQ



#### John O.Cooper



Ph.D. in Pedagogy, Professor Emeritus of Pedagogy, The Ohio State University. John's research interests include precision teaching, internal behaviour, fluency building and verbal behaviour. His numerous publications include the text Measuring Behavior. Together with Tim Heron and Bill Heward, he has trained teachers and leadership staff in special education whose work is guided by the philosophical, scientific and technological principles of applied behaviour analysis.



https://youtu.be/nlUmHW2gMAk

#### **Burrhus Skinner**

"A constantly experimental attitude towards everything - that is what we need. From this attitude comes, in an almost miraculous way, the solution to all kinds of problems" (B. F. Skinner, Walden Two, p.30).

Skinner was an American psychologist known for his influence on behaviourism. Skinner referred to his philosophy as 'radical behaviourism' and suggested that the concept of free will was simply an illusion. Instead, he believed, all human action was the direct result of conditioning. Known for Operant Conditioning, Reinforcement, the Skinner Box, the Cumulative Recorder and Radical Behaviourism.



#### Maria Montessori



Maria Montessori was the first woman to graduate in medicine in Italy. After graduation she began working at San Giovanni Hospital as an assistant, where she worked alongside De Sanctis and Montesano. Giuseppe Ferruccio Maria Montesano, a psychologist, psychiatrist and one of the founders of child neuropsychiatry in Italy, together with Maria contributed to the creation of the National League for the Protection of Children in 1901. In 1907, the first children's home was opened in the San Lorenzo district of Rome, until then a difficult place, with high infant mortality, poverty and alarming sanitary conditions. The love for her son, Mario, born out of wedlock, for whom she was unable to defy the society of the time, was transformed into the project of a pedagogy that wanted to help the development of free, autonomous human beings: CRITICAL THINKERS.



#### https://youtu.be/fSYXqs4gmYA



# **OPEN QUESTIONS**

#### BRAIN AND PSYCHOMOTOR DEVELOPMENT

- TIMING: when do competences emerge?
- EVENTS: what are the competences?
- When to be alarmed?





### BRAIN DEVELOPMENT



Normalit et al. 2018

Sast

35 days



40 days

103-108



Kolb B and Whishaw IQ, Fundamentals of Human Neuropsychology, 2015

# What happens if something goes wrong?

Туре	Symptom
Anencephaly	Cerebral hemispheres, diencephalon, and midbrain are absent.
Holoprosencephaly	Cortex forms as a single undifferentiated hemisphere.
Lissencephaly	Brain fails to form sulci and gyri and corresponds to that of a 12-week embryo.
Micropolygyria	Gyri are more numerous, smaller, and more poorly developed than typical.
Macrogyria	Gyri are broader and less numerous than typical.
Microencephaly	Development of the brain is rudimentary and the person has low-grade intelligence
Porencephaly	Cortex has symmetrical cavities where cortex and white matter should be.
Heterotopia	Displaced islands of gray matter appear in the ventricular walls or white matter, caused by aborted cell migration.
Callosal agenesis	Entire corpus callosum or a part of it is absent.
Cerebellar agenesis	Parts of the cerebellum, basal ganglia, or spinal cord are absent or malformed.

Kolb B and Whishaw IQ, Fundamentals of Human Neuropsychology, 2015

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## **PSYCHOMOTOR DEVELOPMENT**



### Stages of development

- EMBRYO: 0-8 WEEKS POST CONCEPTION
- FOETUS: 9 WEEKS-BIRTH
- NEWBORN: FROM BIRTH TO 28 DAYS OF AGE
- INFANT: FROM THE FIRST MONTH OF LIFE TO THE FIRST YEAR OF AGE
- PRE-SCHOOL/EARLY CHILDHOOD: 2 TO 4 YEARS OLD
- SCHOOL/THIRD CHILDHOOD AGE: 5-10 YEARS
- ADOLESCENT: 11-18 YEARS





#### Enter SENSORIALITY Exit MOTRICITY



### Let's talk about Sensory

Any information arriving from the external environment is received by one of our senses, translated at the level of the central nervous system to generate a response at the level of the peripheral system.

Touch Sight Hearing Smell Taste...

...Vestibular



<u>Sensory:</u> is the complex functioning of reception, transmission and processing of stimuli that lead to the conscious act of perception

# What do we mean by motor skills?

Motor is a complex mechanism of functioning of the apparatuses and structures of the human body. It finds expression in the multiple motor patterns organised by our brain, which require the incessant joint reelaboration of sensory and motor information related to the surrounding space.

The first voluntary neuromotor action that our body performs is translated into the development of the "Motor Pattern", followed by some fundamental movements such as Walking, Running, Jumping, Climbing, Throwing, Grasping.





#### OBJECTIVES

Achieve greater mobility
To achieve an upright position





# Functional motor skills...Le Boulch

Le Boulch is a French doctor and the founder of Functional Motricity, a discipline that uses movement to educate with a view to the evolution of a person's autonomy.

For Le Boulch, the body image develops according to stages, each of which adapts to the previous one. The body scheme in each stage takes on different aspects:

"Body Understood" 0-3 months

"Lived body" 3 months - 3 years

"Perceived Body" 4-6 years old

"Represented Body" 7-12 years



### Body Diagram

The body schema is the mental representation of our body in relation to the organisation of our perception of it in static and dynamic positions. It is a continuously evolving structure that depends on the maturation of the nervous system, the sensory system, structural morphology, postural and psycho-affective.





# **Cognitive Development**

#### THE STAGES OF DEVELOPMENT ACCORDING TO PIAGET

- 1. SENSORIMOTOR 0-2 YEARS
- 2. PREOPERATIVE 2-6 YEARS
- 3. FORMAL OPERATORY 12 YEARS AND OLDER
- 4. CONCRETE OPERATORY 6-12 YEARS



# 3A Approach

# Listen

Let's make listening dynamic!!!



"God gave us two ears, but only one mouth, so that we could hear twice as much and speak half as much."

Cit. Epitteto





### **Behaviour** is the activity of living organisms. Human behaviour is everything people do, including the way they move and what they say, think and feel.

Dead man's test!!!





# The helping relationship

Features

- \* CONGRUENCE
- \* TRANSPARENCY
- \* INDEPENDENCE
- \* UNCONDITIONAL POSITIVE ACCEPTANCE
- \* EMPATHY
- \* PROCESS OF CHANGE



From Carl Rogers' lecture of 3 April 1958

### Active Listening VS Traditional Methods



- You are centred on her, not on you.
- You are listening to her, her thoughts, her values, her feelings, not yours.
- You are listening, not confronting

- You are centred on you, not on her.
- You are listening to you, your thoughts, your feelings, not to her.
- You are comparing, not listening.

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#### **RECOGNISE ACTIVE LISTENING**

The following sentences are taken from real conversations, so read the sentences one by one, marking the answer that you think most accurately captures the feelings in the sentence.

Hey, it's only ten days till holiday!
 You look like you're getting out of a prison.
 Don't be so happy, when you come back it always says you were bored.
 You're really happy about that.

Look! I made this prospectus all by myself!
 You see you just had to follow the directions carefully.
 You're satisfied with that.
 Fine, but did you put it all back?

3. Will you stand by me when they take my blood sample? Does that worry you? Well, all the other people don't make such a fuss. Come on, it's a little thing.

4. Ouch! I'm not enjoying myself. I can't think of anything to do. You're bored and can't find anything to do. Have you tried picking up a good book to read? We all go through that at one time or another, you know, don't make a big deal out of it.



# The idea of self...



The development of an individual's social competence is represented by the ability to grasp the perspective of others and relate it to one's own.





# SELF-REALISATION STEM...

### What do these words evoke?





### Effects of deprivation of needs...

#### Only in a climate of functional human relations can you work truly productive work!



# Interview...

...useful to collect as many elements related to the life, habits, skills, expectations, wishes of the child and the family.





Now it's your turn... let's practice!

#### Open your ears, heart and mind!!!






#### We do not see things as they are, but we see things as we are! (C. G. Jung)



# **DEFINITION OF NERVOUS SYSTEM**

The nervous system is the set of organs and structures that transmit signals between the different parts of the body and coordinate its voluntary and involuntary actions and functions, both physical and psychological.

It consists of the brain, spinal cord, sense organs and all the nerves that connect these organs with the rest of the body.



### **Central and Peripheral Nervous System**

The nervous system consists of:

- Central Nervous System consists of the brain and the spinal cord.
- Peripheral Nervous System is composed of extensions from the central nervous system called nerves. Cranial nerves descend directly from the skull and are 12 pairs; Spinal nerves descend directly from the spinal cord and are 31 pairs. Each nerve consists of a bundle of axons of sensory or motor neurons, which together form the means of exchanging information with the central nervous system.





### The four basic tasks of the nervous system

- Receives sensory messages from the external environment;
- Organises the information received and integrates it with existing information;
- Sends messages to muscles and glands to produce coordinated movements and adaptive secretions;
- Originates conscious experience, a flow of perceptions, thoughts and feelings essential to the construction of our psyche.





The cortex represents 80% of the total volume of the brain and is divided into two hemispheres, Right and Left. The hemispheres are symmetrical for sensory and motor functions, while the associative areas are symmetrical, as they are specialised for language on the left and non-verbal/visual spatial on the right. Each hemisphere is subdivided in turn into four lobes delimited by deep furrows.

In the figure it is possible to locate, of the areas of interest for our work, the **primary motor area** and the **primary sensory areas**.





### **Motor Homunculus and Sensory Homunculus**



In 1950, the Canadian neurologist Wilder Penfield represented the different parts of the body on the primary motor cortex and the primary sensory cortex, respectively. This description gave rise to the "MOTOR AND SENSITIVE HOMUNCULUS" Knowledge of the different parts of the body and their perception determines self-control. Its representation plays a fundamental role between the Ego and the external world.

#### What our body would look like depending on the level of specialisation of the









### **Types of sensory perceptions**

- \* HYPER: the pathway is too open and as a result the stimulation reaching the brain is excessive and annoying.
- \* IPO: the sensory pathway is not sufficiently open and as a result the stimulation is too little and the brain is deprived.
- \* WHITE NOISE: the sensory pathway produces stimuli independent of what is happening in the outside world due to a defect in the sensory pathway and as a result the message from outside is distorted or, in extreme cases, covered by the background noise of the system. The cause is to be found in a central lesion.



#### Proprioception

A special type of deep sensitivity that travels along a complex network of pathways and nerve centres, from which bioelectric impulses are transmitted every moment. These impulses are transformed into valuable information and go on to create subjective awareness of the position of body segments in space and consequently also of their movements moment by moment. In everyday life, and even more so in everyday actions, maintaining posture, controlling or achieving balance play a very significant role in independence.



# Tact

Touch is divided into superficial, medium and deep. On the skin we have receptors that allow us to determine whether we are hot, cold, whether a fabric is soft, smooth or whether a surface is rough. It is the most important sense and the first to be formed.

- \* HYPER SUPERFICIAL TOUCH
- \* HYPO SUPERFICIAL TOUCH
- \* HYPER DEEP FEEL
- \* HYPO DEEP FEEL
- \* WHITE NOISE





### **Tactile problems**

#### Walks on tiptoes

- \*Is insensitive to painful stimuli
- \*Is annoyed by caresses or kisses
- \*Is extremely sensitive to pain
- \*Presents a permanence of the stimulus (e.g. keeps rubbing a spot on
- the body where he tapped half an hour before)
- \*He shakes his hands and/or bangs them on his forehead, face or
- sideways on his face.
- \*Hits the head against hard surfaces
- \*Creates deep lacerations in the skin
- \*Slaps, punches, bites or in some way injures themselves (important
- to know what kind and where)



# Hearing

- HYPER HEARING
- HYPER HEARING (not to be confused with deafness)
- WHITE RUMOR



The ear processes waves into sound information and sends it to a first level in the cortex, from there to a second and then a third.

(Wernicke's area where we have understanding).

THOSE WHO DO NOT HEAR DO NOT SPEAK, THOSE WHO HEAR BADLY WILL SPEAK BADLY



### Sensory hearing problems

- It emits sounds with a very high-pitched timbre or vocalisations for selfstimulation.
- Hits himself on the head or ears.
- Hits objects to make noise.
- Isolates him/herself in music or listens to it at a very high volume.
- Blocks his ears with his hands.



# View

Sight is a processing of light by our brain. Through the eye, light is processed and sent to the brain so that it can be decoded into... images, symbols, colours...

- \* HYPER VISION
- \* HYPER VISION
- \* CENTRAL VISION
- \* PERIPHERAL VISION
- \* WHITE NOISE





### Sensory problems of vision

\*Avoid making eye contact.

\*Stare at hands, objects or details in the surrounding environment for

at least 5 consecutive seconds.

\*Rapidly moves his fingers or hands in front of his eyes for a few

seconds or more.

\*Seems to look in the air at things only he can see.

\*Moves non-specific objects to make them spin (e.g. saucers, cups,

glasses).

- \*Quickly rotates balls or wheels.
- \*Stacks objects with extreme precision.
- \*Creates threads with his saliva and spits.

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# **TASTE AND SMELL**

- \* Taste depends on our sense of smell.
- Without a sense of smell we only distinguish sweet, salty, sour (spicy), bitter and umami





- Sweet is at the tip of the tongue, salty at the sides.
- We can mistake problems of taste and smell for problems of tactile sensation in the mouth (chewing).

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### Sensory problems of taste and smell

- \* Eats particular foods and refuses to eat foods that everyone usually eats.
- \* Eats whatever he can grab (faeces, dirt, detergents, etc.).
- Licks non-edible objects (e.g. a person's hands, clothes, toys, books, etc.).
- \* Smells or smells objects (e.g. toys, people's hands, hair).
- \* Eats with the face turned away from the plate.



# **Vestibular-Balance**

- \* Static, dynamic and in flight.
- \* Balance and eye control.
- \* Balance and posture control
- Balance and superficial and deep tactile perception (proprioception).





### Vestibular sensory problems

- \* Rotates on itself or turns in a circle.
- \* Swings back and forth while sitting or standing.
- \* Sprints forward, quick movements when moving from one place to another.
- \* Jumps while moving or moving from one place to another.
- \* Takes up awkward postures while sitting or lying in an upside down position.



# 3A Approach

# **Take Action**

The motor task always corresponds to the cognitive task.





#### Laterality, Dominance and Lateralisation ...

#### Laterality

By laterality we mean the knowledge of the left and right sides of the body and the privileged use of one hemicorpus over the other.

#### Dominance

Related to laterality, it concerns the cerebral hemispheric organisation, one of the two hemispheres is dominant over the other and on the basis of this dominance the praxic, gnosic and language functions are structured.

#### Lateralisation

This is the process through which laterality develops, i.e. the relationship between being able to discriminate between left and right, establishing the relationship of dominance and the implication that this has with reality and the management of surrounding objects. Lateralisation is fundamental for correct psychomotor development. Incorrect or incomplete lateralisation affects language, writing, reading, spatial-temporal organisation...



# HOW TO TAKE ACTION?



### **OPEN QUESTIONS**

- HOW: What kind of activities to implement?
- WHAT: Which competences to stimulate?
- TIMING: How much time to dedicate?







- CHEETAH PASS;
- ROE DEER;
- HORIZONTAL LADDER;
- RIDER
- ROEFS;
- TURNS...



And now VIDEOOOO...

# SENSORY STIMULI

- BODY SECTION MASSAGES (FACE-MOUTH-ARMS-LEGS);
- ODOUR TOMBOLA;
- PENCIL;
- TACTILE MEMORY;
- RAIN ON THE HEAD;
- EAR TAPPING;
- TBI...



#### AND NOW VIDEOOOO...

# ADAPTING TEACHING

Better a well-made head than a well-filled head.

(M.Montagne)

In order to follow a full integration process, a precise adaptation of the curricular objectives has to be carried out, to do this it is necessary to adopt different strategies, here are some key words: REPLACEMENT FACILITATION DISCOVERY SIMPLIFICATION



# To adapt teaching,

# is essential ...

#### Choosing the right school materials by assessing:

- Textbooks;
- Materials;
- Colours;
- Equipment;
- Technological aids;
- CAA...

#### AND ABOVE ALL, WE ASSESS OUR CHILD'S WISHES, PERSONAL AND SOCIAL NEEDS...





