



Montessori Therapy

No. LLI-352
INTERPROF



ŠIAULIŲ
UNIVERSITETAS



Project is partly financed by
Interreg V-A Latvia – Lithuania Programme 2014-2020

www.latlit.eu

Historical aspect of Montessori pedagogy

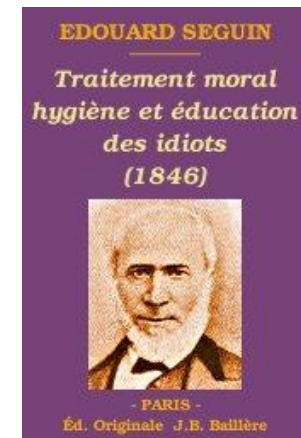
Maria Montessori (1870 – 1952) was the first woman in Italy who got the right to study medicine. In 1896, when starting the work in Children Unit of Psychiatric Clinic of Rome, in parallel to the doctor's work she started turning to the pedagogy problems because she believed application of pedagogical methods and special didactic materials is very important in healing of sick children.



The studies of French doctors *Jean – Marc Itard* (1774 – 1838) and *Edouard Seguin* (1812 – 1880) about the teaching and habilitation of children and adults with hearing and mental disabilities are regarded as the historical roots of Montessori pedagogy.

Jean – Marc Itard (1774 – 1838)

Edouard Seguin (1812 – 1880)



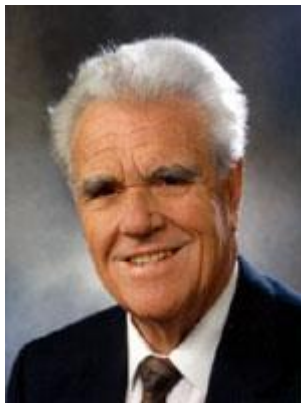
In 1907, the first “*Cassa Bambini*” (children home) was opened in **Rome**. This is the moment when the pedagogy of the new doctor is recognized and it is spread far beyond the borders of Roman Municipality and Italy. The historical roots in medicine are forgotten and Montessori pedagogy continues its development as a direction of alternative pedagogy for children without special needs.



Montessori pedagogy nowadays – developing, educating and healing pedagogy

In 1967 German professor *Th.Hellbrügge (1919 – 2014)* set new targets and tasks for Montessori pedagogy – in Munich Children Centrum (first at Güllstraße 3 from 1968, then at Heighhofstraße 63 from 1987) Montessori pedagogy obtained

the status of healing pedagogy.



The initial aim – inclusion and social development of children with special needs. However, the practical work experience showed that these children are given new possibilities also in promotion of cognitive development, because the learning process in Montessori pedagogy is based on ***neurophysiology and aetiology***:

- observation of sensitive periods of children development and individual needs;
- understanding and observation of interrelation of associative and operative teaching methods;
- understanding and application of interrelations of social and cognitive learning processes (*Hellbrügge, 1998*).

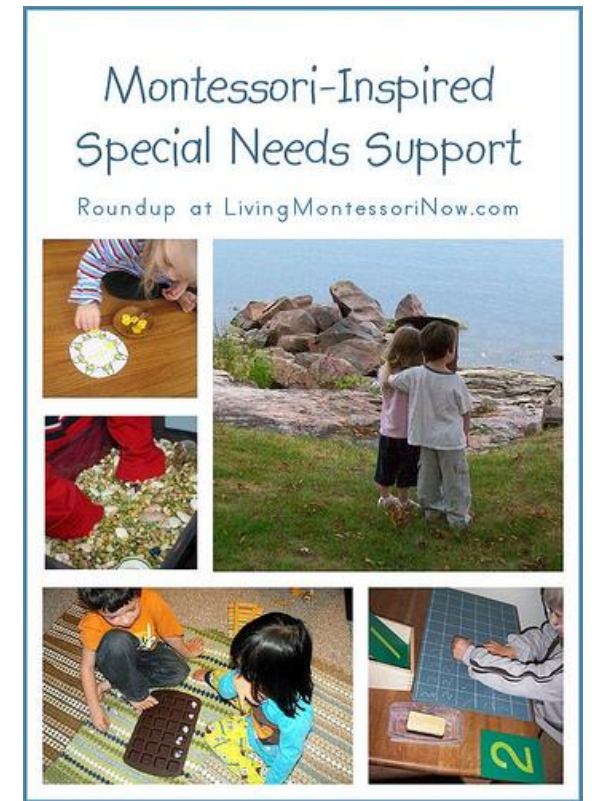
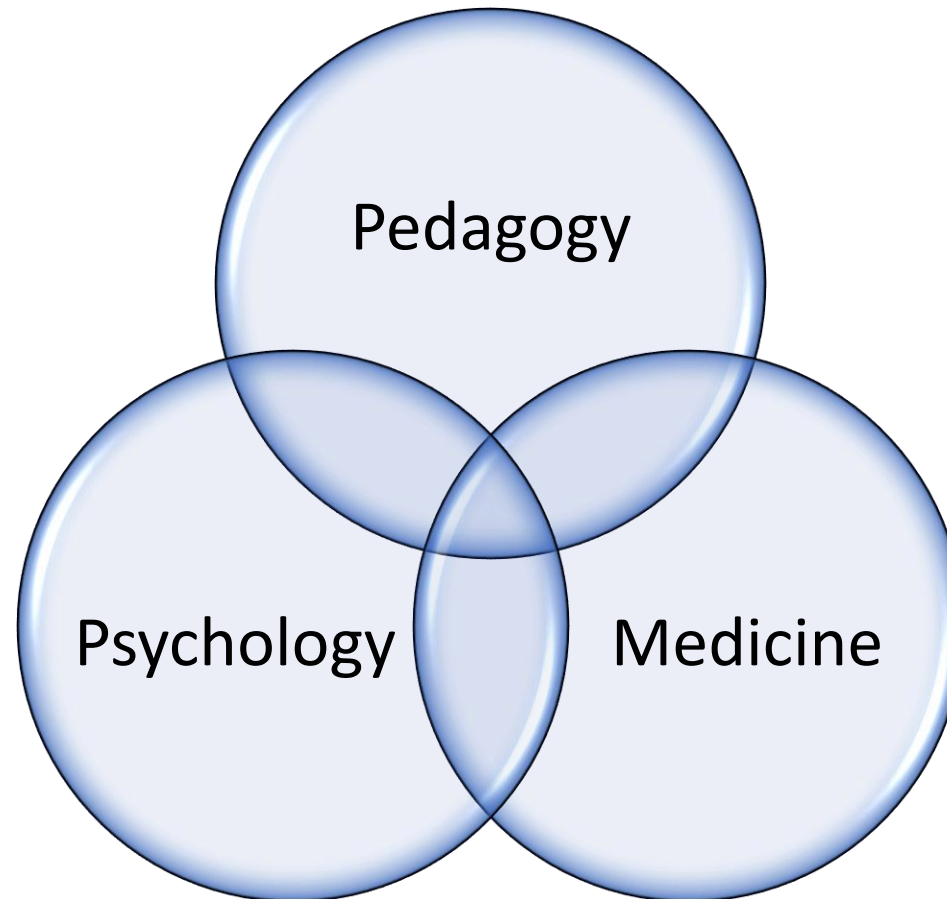


Nowadays, Montessori pedagogy and therapy are used in development of motoric, sensory and perception, language, cognitive, social and emotional sphere, promotion of development and correction of disorders at different ages.

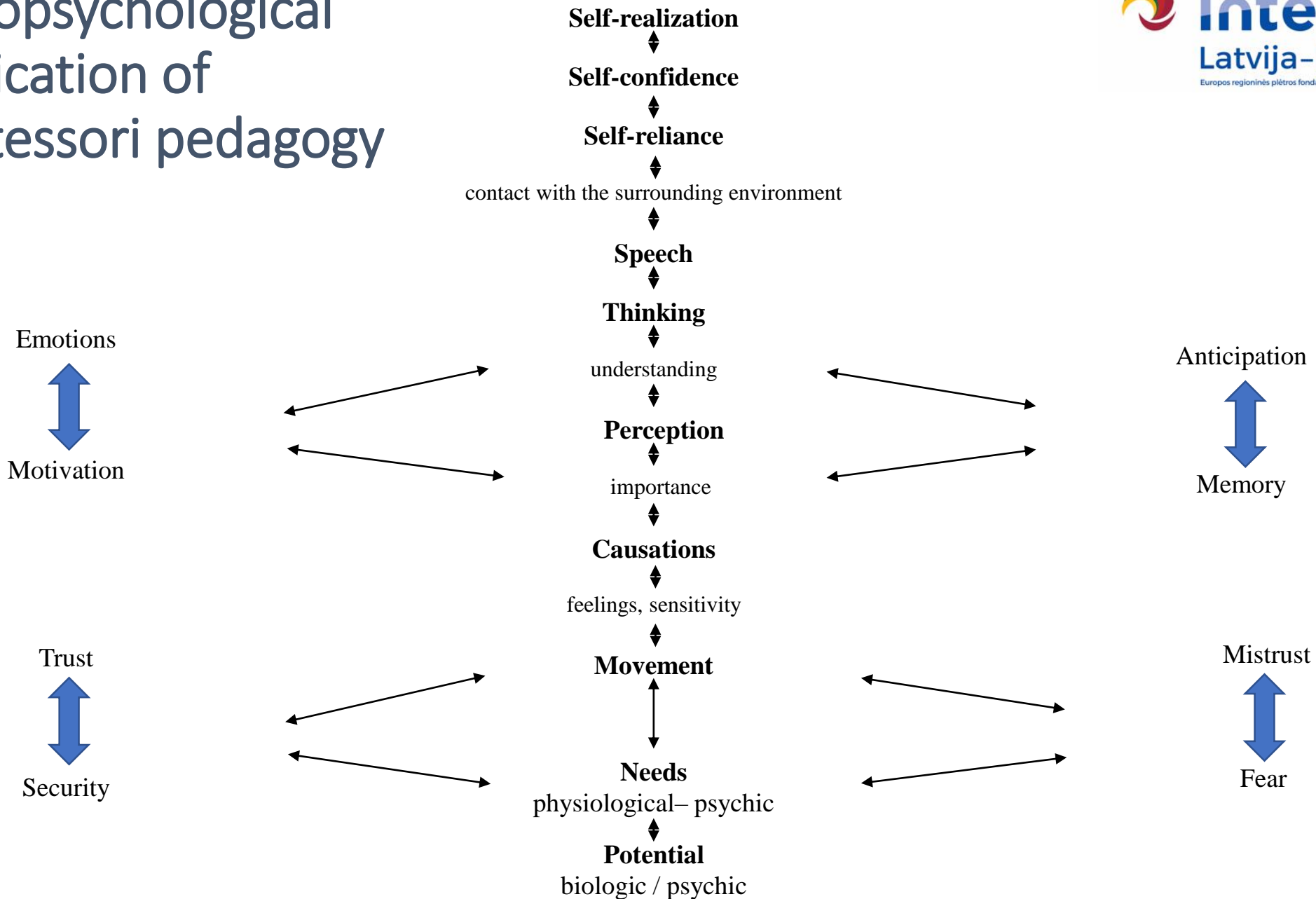


Montessori therapy

*Montessori-
habilitare-Therapie®*
by Lore Anderlik



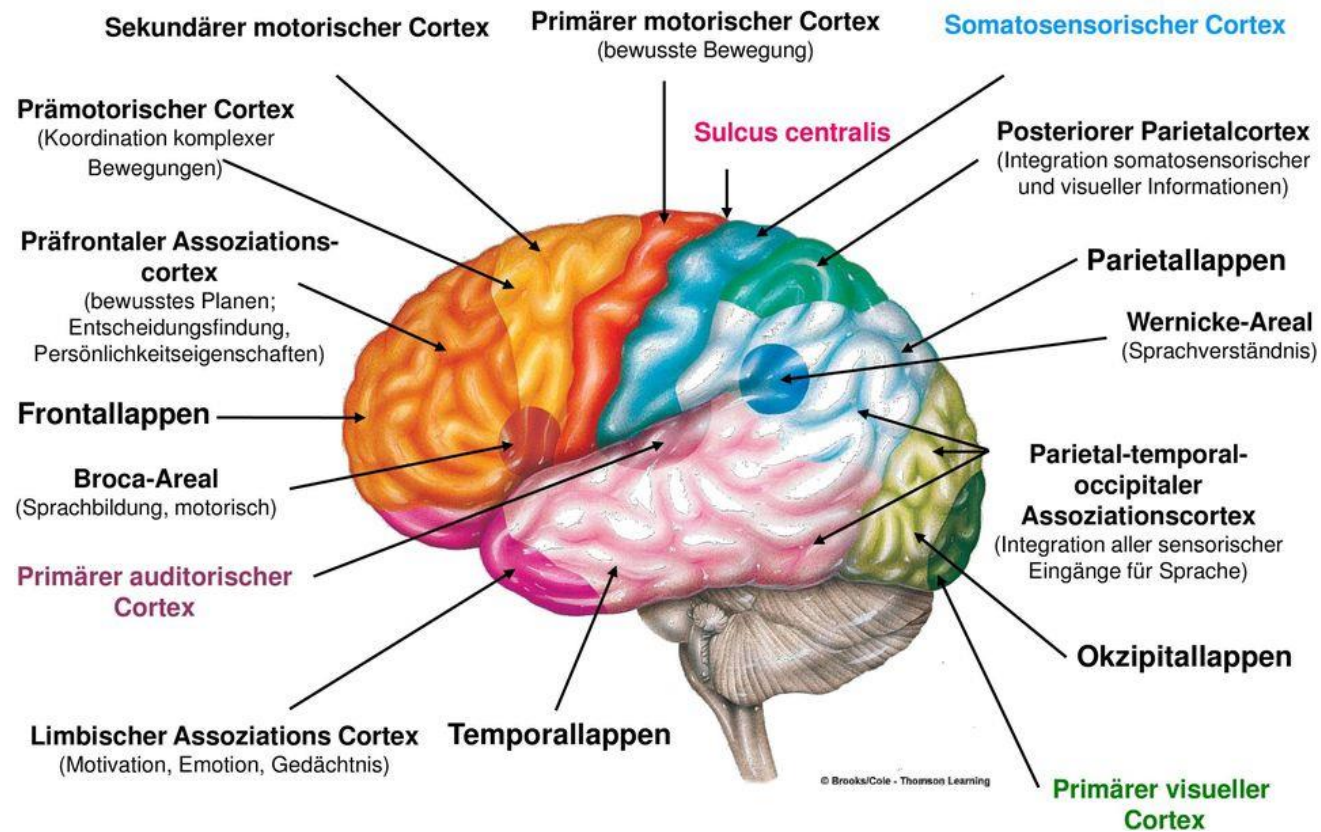
Neuropsychological justification of Montessori pedagogy



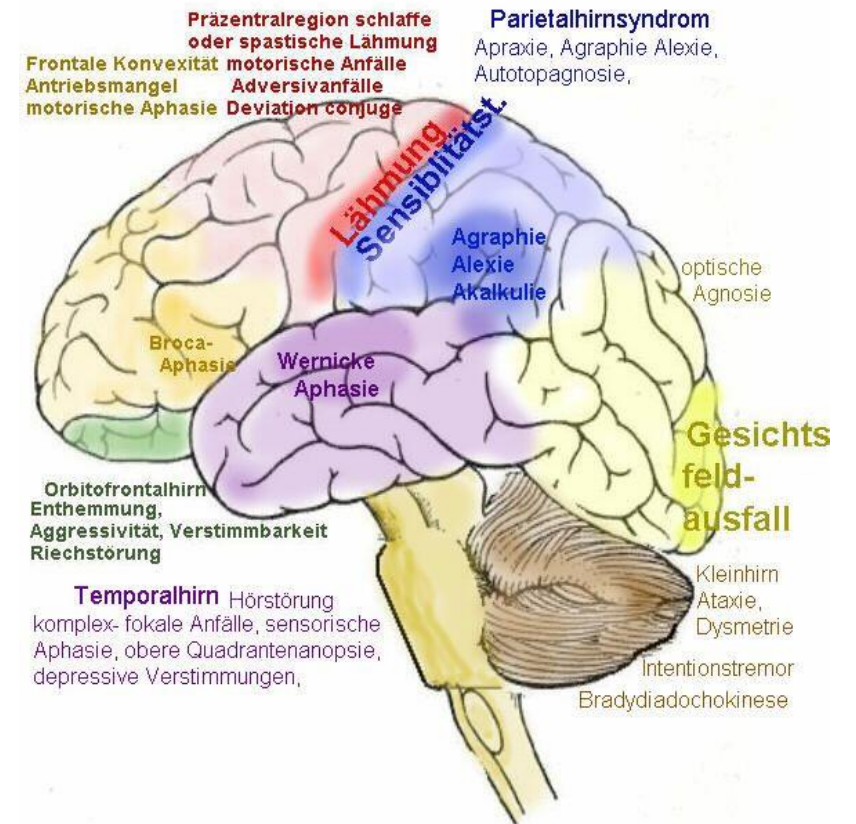
Neurologic disorders

Gehirn

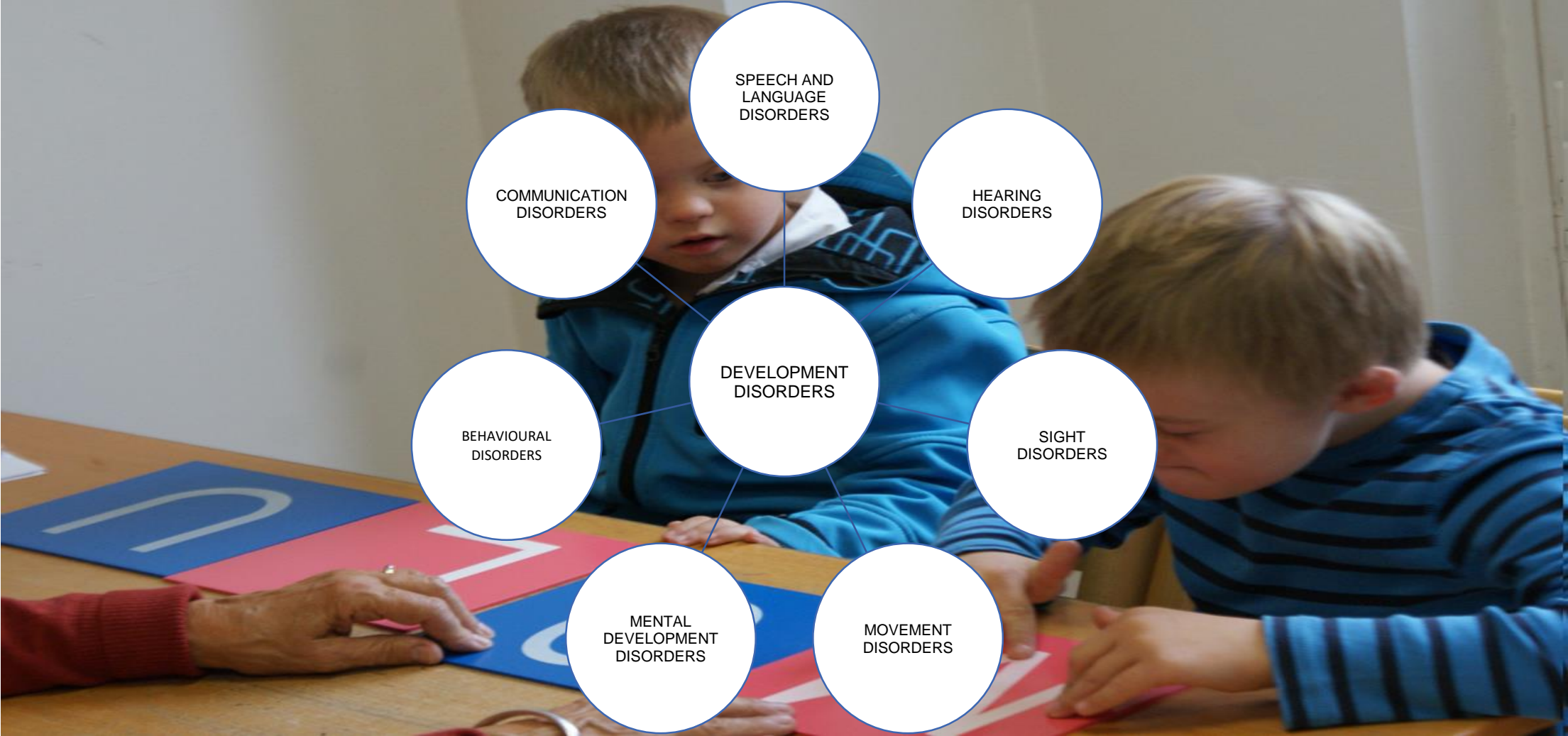
Funktionelle Gliederung



Hemisphärensyndrome, dominante Hemisphäre



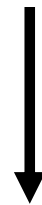
Montessori therapy and forms of disorders



Inclusion of children with special needs in Montessori teaching system

Individual therapy

- together with parents/relatives – training of parents/relatives;
- familiarization with Montessori prepared environment and principal conditions;
- gradual acquisition of Montessori didactic materials (practical life exercises, senses development material, adapted material);
- adaptation of didactic material for the work at home;
- adaptation of material for children with different development disorders.



No. LLI-352
INTERPROF



Inclusion of children with special needs in Montessori teaching system

Small group therapy

- further implementation of the aims and tasks of individual therapy, setting new aims and tasks;
- gradual increase of the number of children (2 – 4);
- promotion of social development with the aim to develop the contact and communication skills;
- instruction of parents how to include a child with special needs in the family and other micro teams (relatives, friends, neighbours);
- aim – develop the independence and sociability;
- way – gradual increase of the stage of difficulties.



No. LLI-352
INTERPROF



Inclusion of children with special needs in Montessori teaching system

Montessori group

- inclusion of children with special needs in the society of healthy children;
- further correction of social development disorders and the development of independence and communication skills of healthy children;
- promotion of development of language and cognitive skills *on the base of development and stabilization of overall movement and tiny motoric exercises, activities with items and development of playing, senses' sensibilization and differentiation, improvement of social relations, development of creativity and thinking, attention, concentration abilities, promotion of patience, will, personal activities, initiative, independence and self-confidence.*

Montessori kindergarten *(researchers' workshop)*



Montessori kindergarten *(researchers' workshop)*

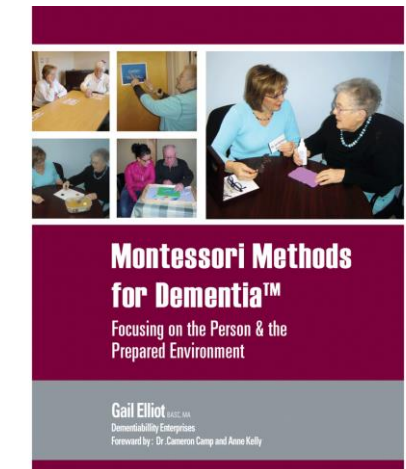
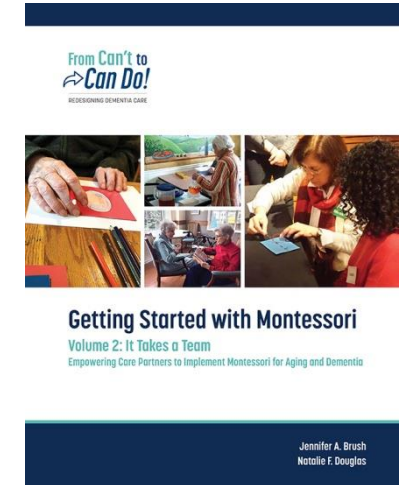


Lessons of Montessori pedagogy for children *(Active hands, Screws & Ribbons)*



Montessori therapy for adults

(Hastings District Respite Care)



Montessori therapy at hospital

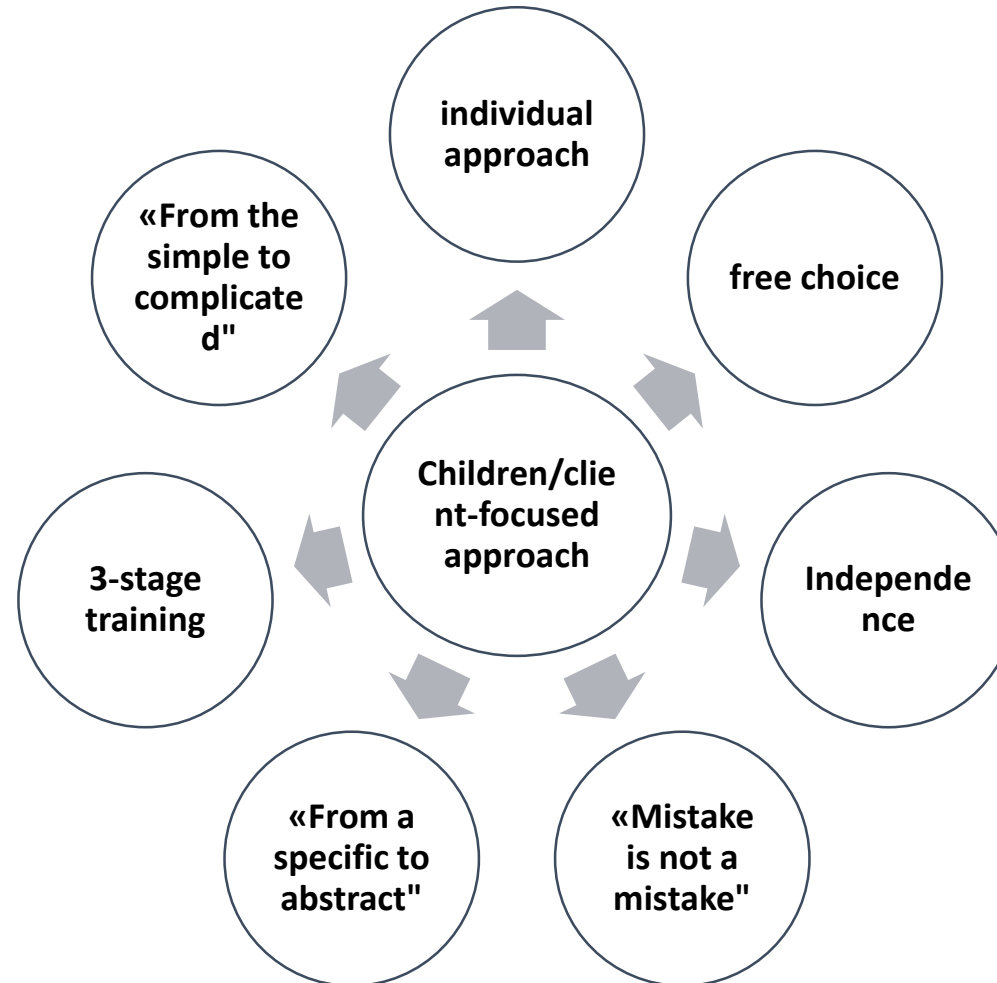
(Toronto Hospital)



LiepU IZI Centre of alternative education



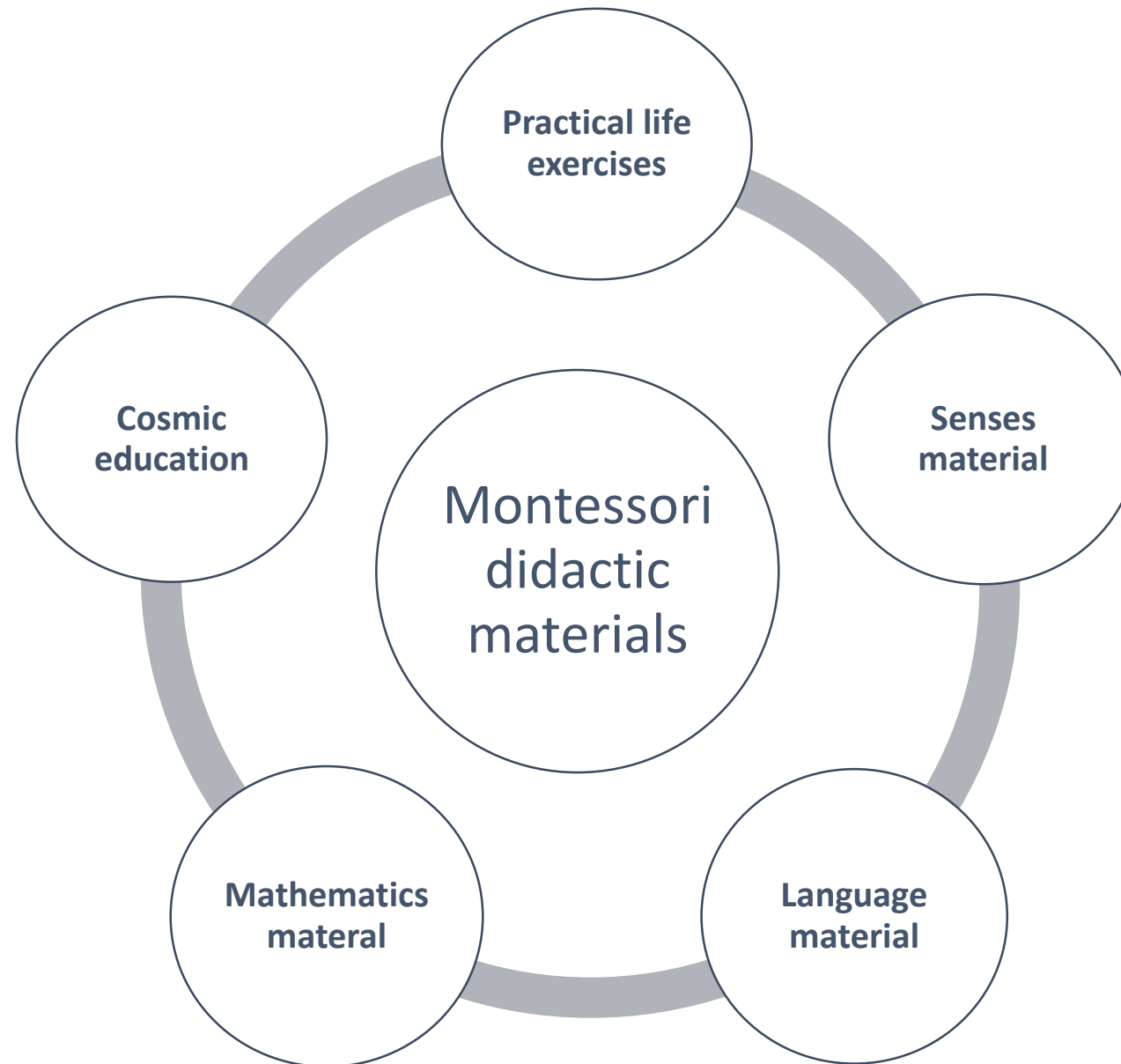
Didactic principles of Montessori pedagogy and their use in therapy



Basic principles of Montessori lessons and adaptation thereof in therapy

- Free choice and selection of didactic materials (in therapy – partially).
- All shelves are open, available (in therapy – partially).
- Each material is only in one copy.
- After the lesson, material always must be put back in place (in therapy - with support).
- Material is appropriate for the height, age and abilities (in therapy – adapted).
- Material is autodidactic, independent control of mistakes is possible.
- Mistake is not a mistake – it’s only the next exercise.
- Lesson can be repeated according to child’s/adult’s wishes (in therapy – partially).
- Individual work pace and rhythm.
- Learning through observation, imitation and independent work (in therapy - with support).
- Child/adult is in the foreground. Teacher is only an observer and assistant (therapist has the leading role in planning and implementing the therapy).
- Aid must be rendered following the motto:

“Help me to do it by myself!”



LiepU IZI Centre of alternative education







Practical life exercises are development exercises.

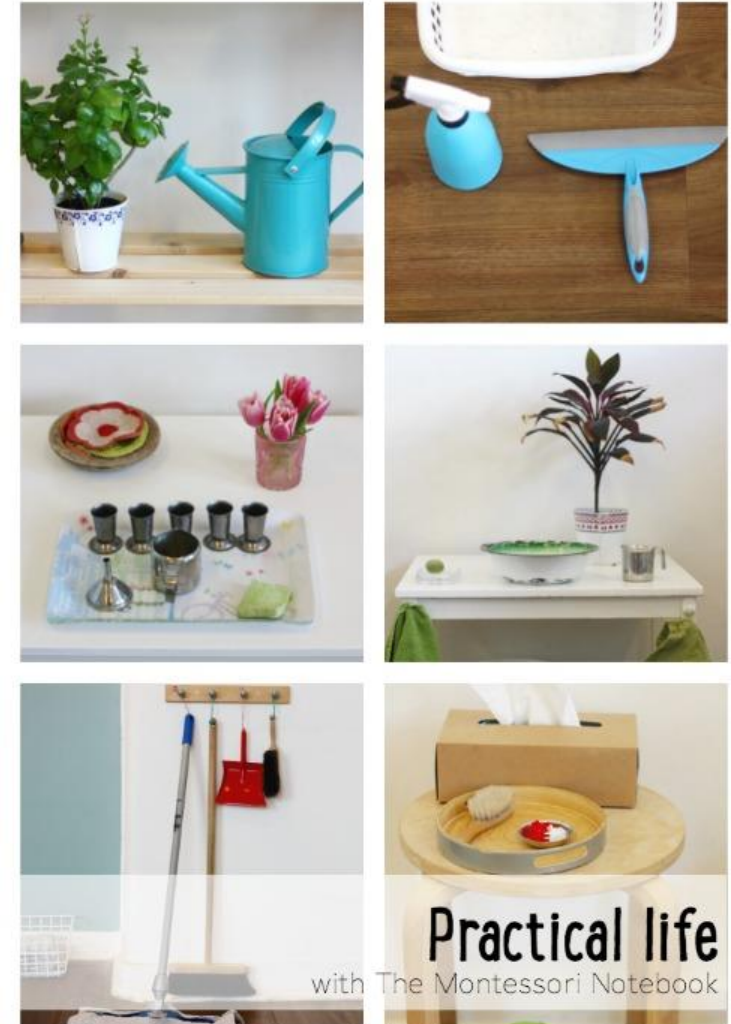
An adult works to develop the environment, but a child – to develop himself.

(M.Montessori)



Groups of practical life exercises

1. Preparatory (simple movement) exercises
2. Self-service exercises
3. Care for the surrounding environment
4. Politeness exercises
5. Special movement exercises



Aims of practical life exercises

Direct

Help to master, restore, improve or preserve the skill to do a specific activity (e.g. open, close, sip, pour, button, wash hands, sweep the floor, care for pets, etc.).



Aims of practical life exercises

Indirect

1. Develop/improve and coordination and accuracy of general and tiny movements.
2. Develop/improve the psychic processes – attention, ability to focus, ability to perceive, senses, memory, understanding of causal relations, thinking.
3. Develop/improve the will, endurance, patience and independence.
4. Help to master/improve social skills, harmonizes the personality.
5. Prepare another group of didactic material – to master the senses, language, mathematics and cosmic education material.
6. Improvement of life quality.



Senses development exercises are “materialized abstraction” and “key to the world”.

They wake up one’s mind and open the feelings.

(M.Montessori)



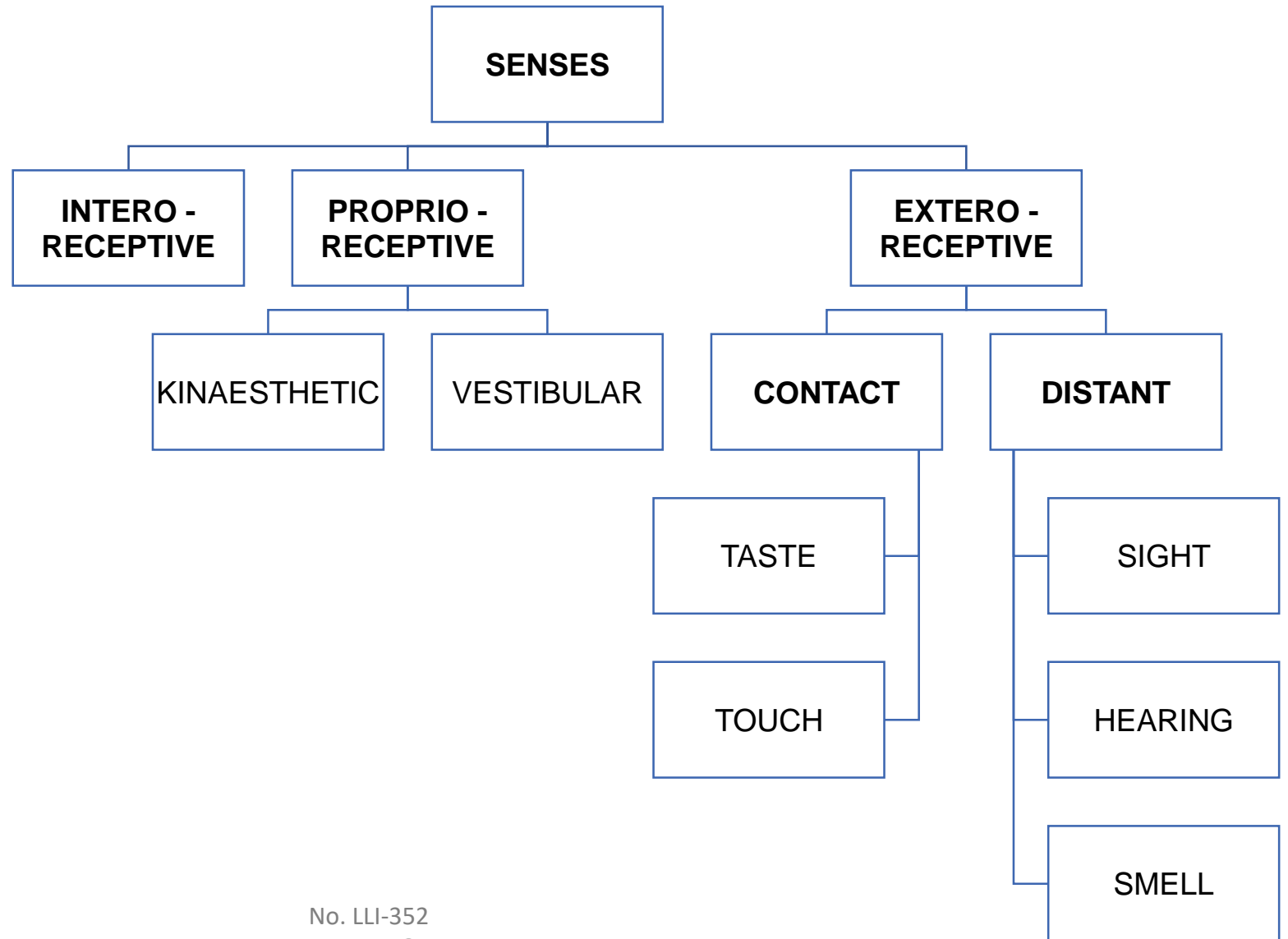
Historical aspect of Montessori senses material

- Didactic principles Montessori senses material are based on the opinions of Edouard Seguin's work "Physiologische Erziehung der Schwachsinnigen".
- E.Seguin's psycho-physiological training is based on the opinion **"from perception to creation of ideas"**, that is based on:
 - development of muscle (motor abilities);
 - observation and imitation;
 - development of senses (touch, taste, smell, hearing, vision).
- Fundamental importance is for the revelation of hands as a grasping organ that gives contact with the world - **"Hands are the best tool and the best interpreter of thinking"**.

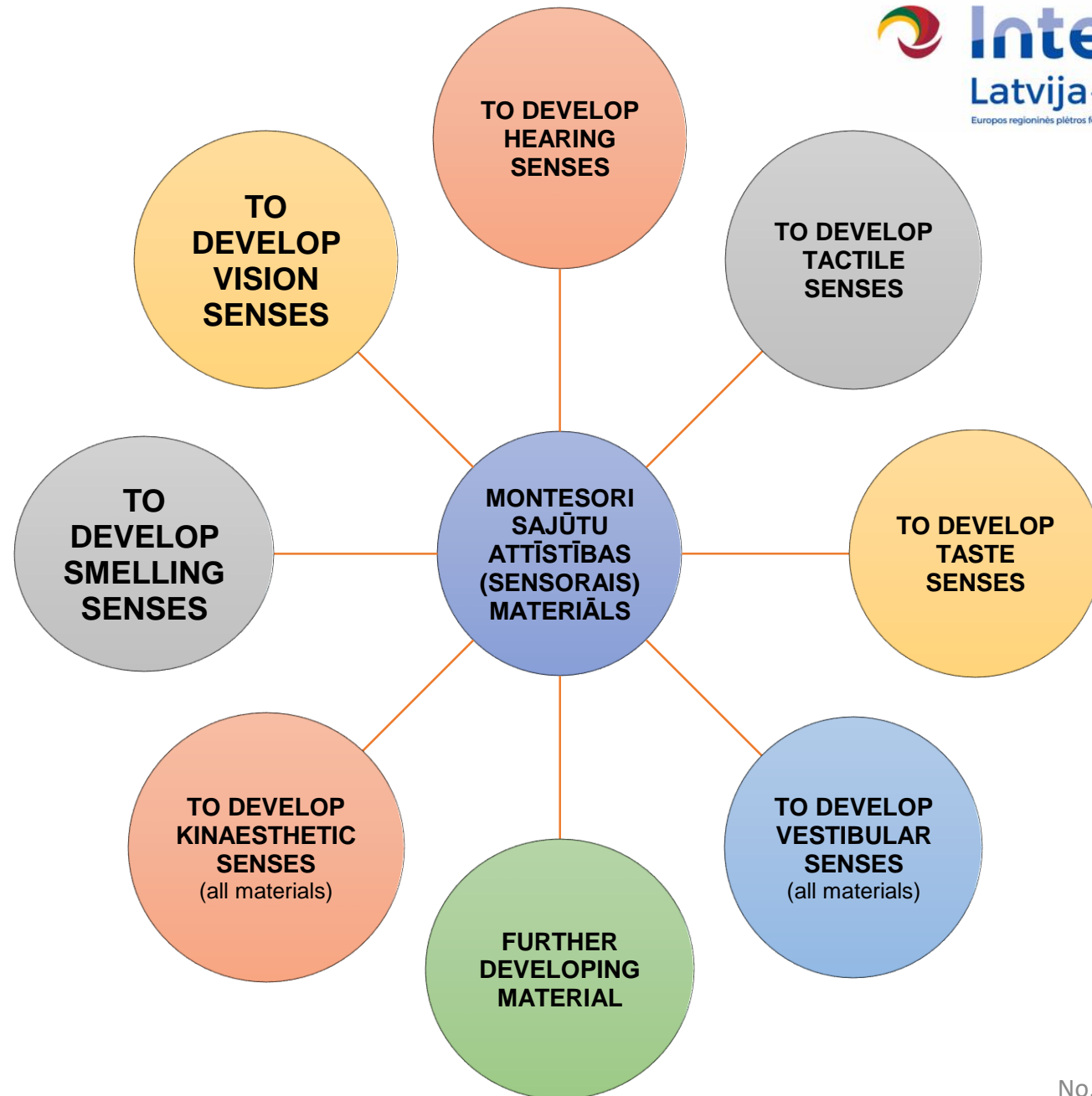
E.Seguin's therapeutically – pedagogical concept

- Subjecting **the senses in general and each individually** to special physiological development, one can achieve **unlimited intellectualization** of their initial possibilities.
- One sense can be used as **a means and aid** to develop another sense.
- physiologic exercise with one sense **intensifies** the functions of another sense and mastering of these functions.
- **Abstract ideas are** a comparison and generalization of what we have perceived **with senses**.
- Development of perception means to prepare “nourishment” for mental development.
- **Senses is intellectual function that are developed by means of external aids** just like their forming, developing through internal (inherited) qualities.

Forms of senses



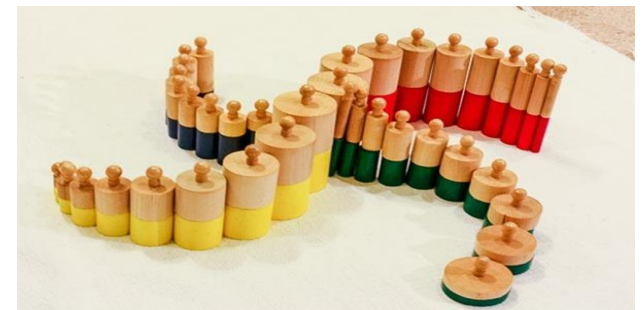
Montessori senses materials





Montessori sensory material

- Main characteristics of material – **isolation**:
 - senses;
 - properties of material;
 - stage of difficulty.
- **Scientificity** in creation of material :
 - in selection of forms;
 - in selection of comprised content;
 - in selection of size;
 - in selection of colours;
 - in selection of numbers.
- Material **motivates to work**:
 - special interest points;
 - autodidactic.



3-stage training method

- **Familiarization** with material (therapist's demonstration, perception of material's properties at sensory level, mastering the actions)
- **Stage 1** – giving the term (therapist names the terms included in the material, no verbosity – “This is ...”)
- **Stage 2** – knowing the term (child/adult knows the term, understands its meaning; exercises must be changes during the lesson – “Show...”, “Take...”, “Bring...”, “Give...” etc.; the most important and longest stage)
- **Stage 3** – knowing and naming the term (child/adult knows and names the term included in the material “What it is/what's it like?”)
- **Generalization** – the term is used in new situations (only now it can be regarded that the term is mastered)

Meaning of senses development exercises

1. Development and sensibilization of senses
2. Development of general motor skills
3. Development of manual dexterity
4. Development of perception
5. Development of thinking and speech
6. Development of attention and memory
7. Indirect preparation (of children) for school
8. Development of personality
9. Improvement of life quality



Meaning of senses development exercises

- Children/adults learn to plan, prepare, analyse, compare, discuss and work together with other children/adults through independent work.
- 3-stage training has special meaning – abstract concepts are mastered, knowledge is supplemented and the diversity of the surrounding world is familiarized.
- Normalization of the child/adults takes place – mental abilities are developed, focused, arranged and extended.
- Relations of the child/adults with the social and material environment are improved, independence continues to develop/restore.

Montessori pedagogy in promotion of language development and correction of disorders

1. Philosophic basic principles (theory of Montessori pedagogy):

- prepared environment;
- prepared teacher;
- observation of sensitive development phases;
- freedom – in selection of time, space, material, partner and aid;
- individual work.

2. Didactic basic principles:

- principle of succession: from the specific to abstract, from the simple to complicated;
- principle of systematicity;
- development principle;
- principle of wholism approach;
- principle of 3-stage training.

3. Didactic materials :

- indirect – all groups of materials;
- direct – language development materials.





Division of language materials

I Speaking

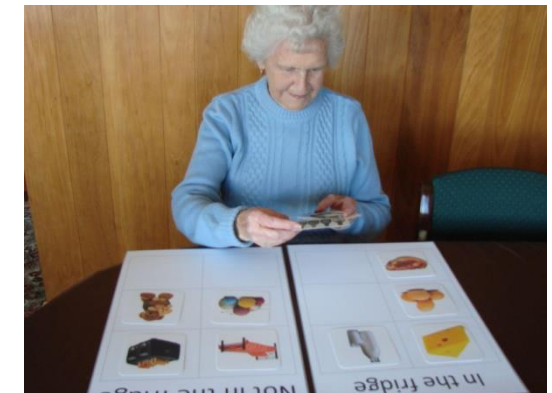
1. Overall extension of vocabulary
2. Series of images to extend the vocabulary
3. Sets of tiny items to extend the vocabulary

II Writing

1. Metal embedded shapes
2. Sound games
3. Sandpaper letters
4. Moving alphabet (boxes 1,2,3)

III Reading

1. First group of reading materials: from a word to sentence
2. Second group of reading materials: function of parts of speech
3. Third group of reading materials: analysis of sentence
4. Fourth group of reading materials: analysis of word



Mastering of verbal language

Vocabulary / functions of parts of speech

Extension of concepts and vocabulary

Talks, walks, excursions, books, theatre, etc.

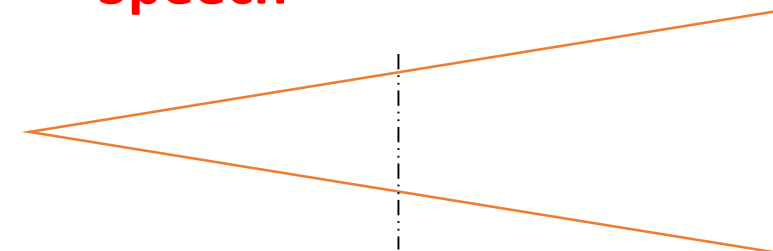
Montessori language materials

Series of images, sets of tiny items

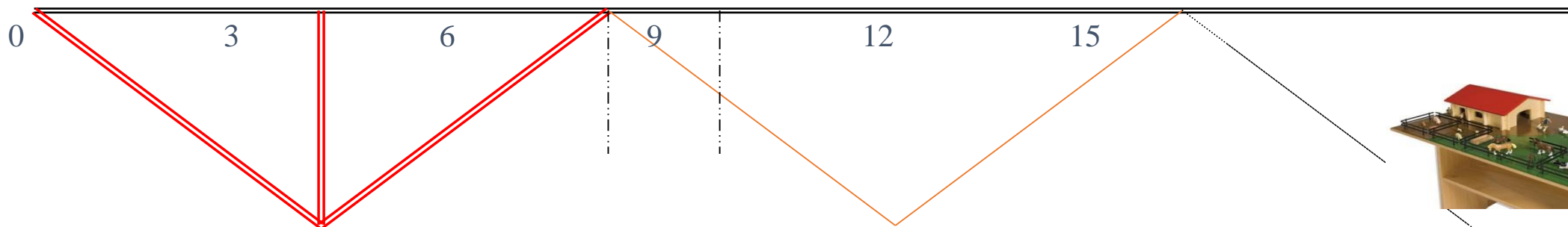
Indirect stimulation of language development

(practical life, senses material, cosmic education, mathematics)

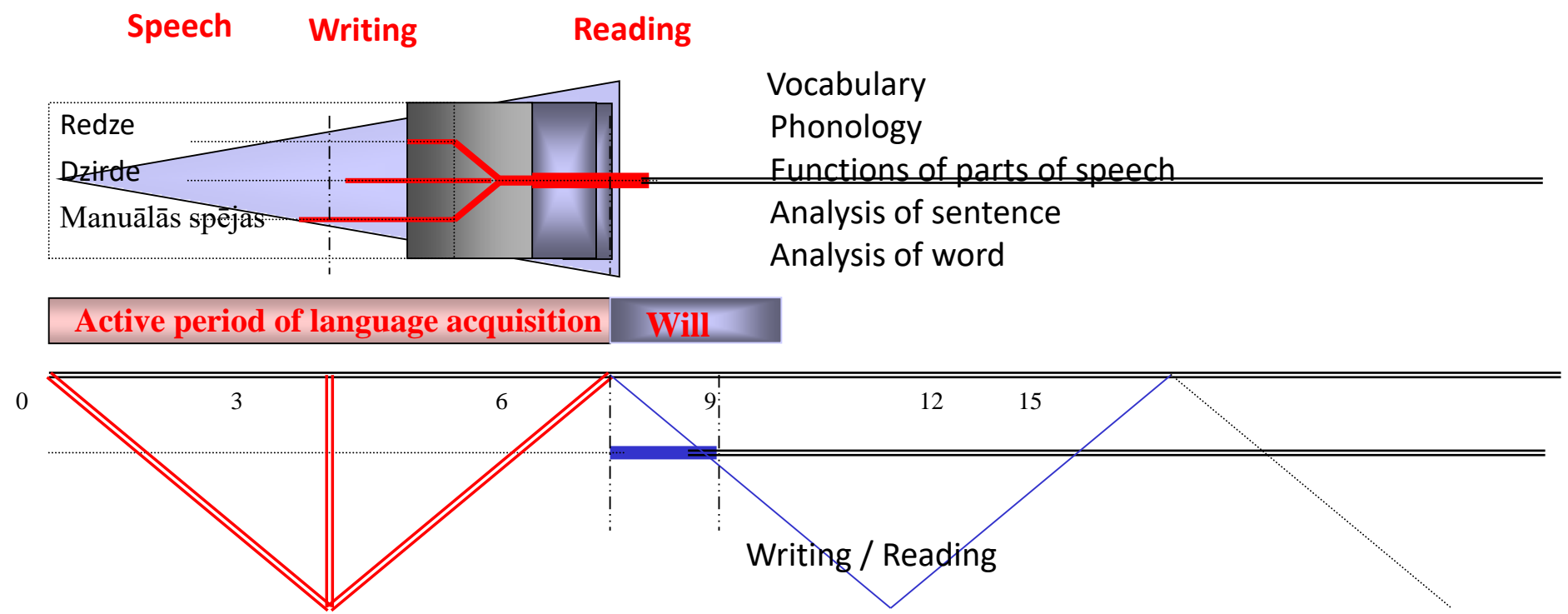
Speech



Active period of language acquisition



Mastering of written language (according to M. A. ...)





Correction of speech and language disorders in Montessori lessons



Integration of speech therapy technologies (diagnostic, myofunctional and breathing exercises)

Implementation of tasks and aims of Montessori didactic lessons

Adaptation of Montessori didactic materials and further development to stimulate language development



Mathematics

- Montessori mathematics materials provides the child with the possibility to master abstract mathematical ideas by means of specific materials that are arranged in specific, consecutive structure.
- Mathematic has its own specific vocabulary, but in Montessori pedagogy it always linked with a specific action – comparison, creation of series, classification, measuring and counting.
- Word is not only an abstract idea, it is materialized in a specific material, specific action.

Mathematics

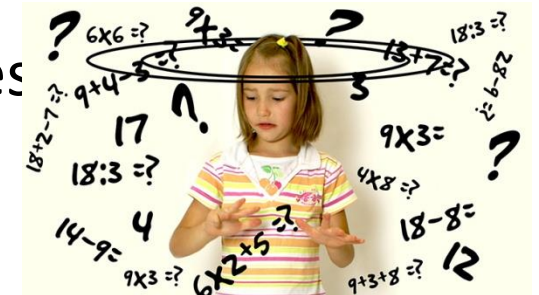
- To master mathematics and geometry, the children are prepared indirectly through the work with senses materials – materialized abstraction.
- Languages are bridge between the specific and abstract things.
- Timely developed and fixed vocabulary with mathematical terms is a base for successful mastering of maths at school age.

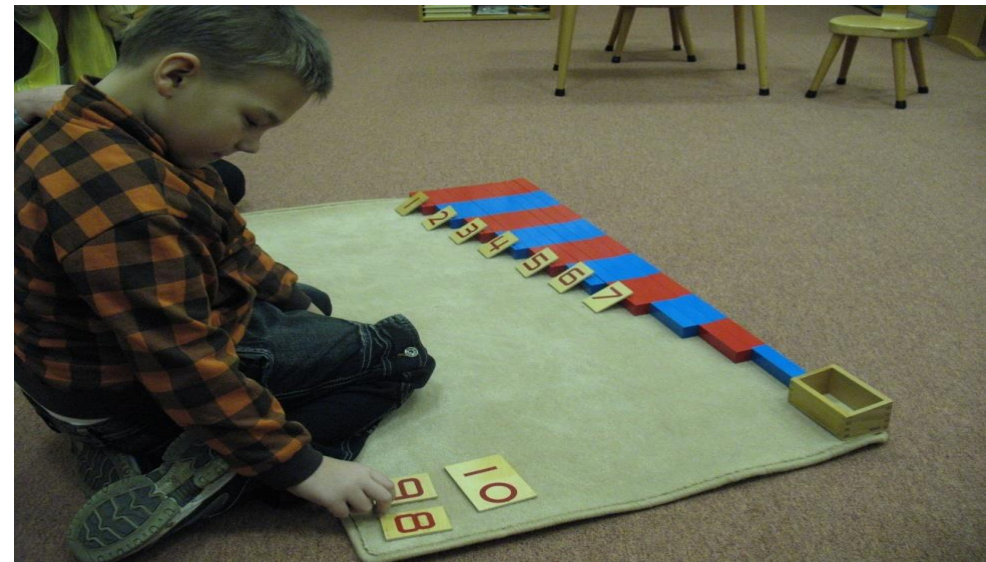


Forms of calculation disorders

(according to Akademie für Lehrerfortbildung Dillingen)

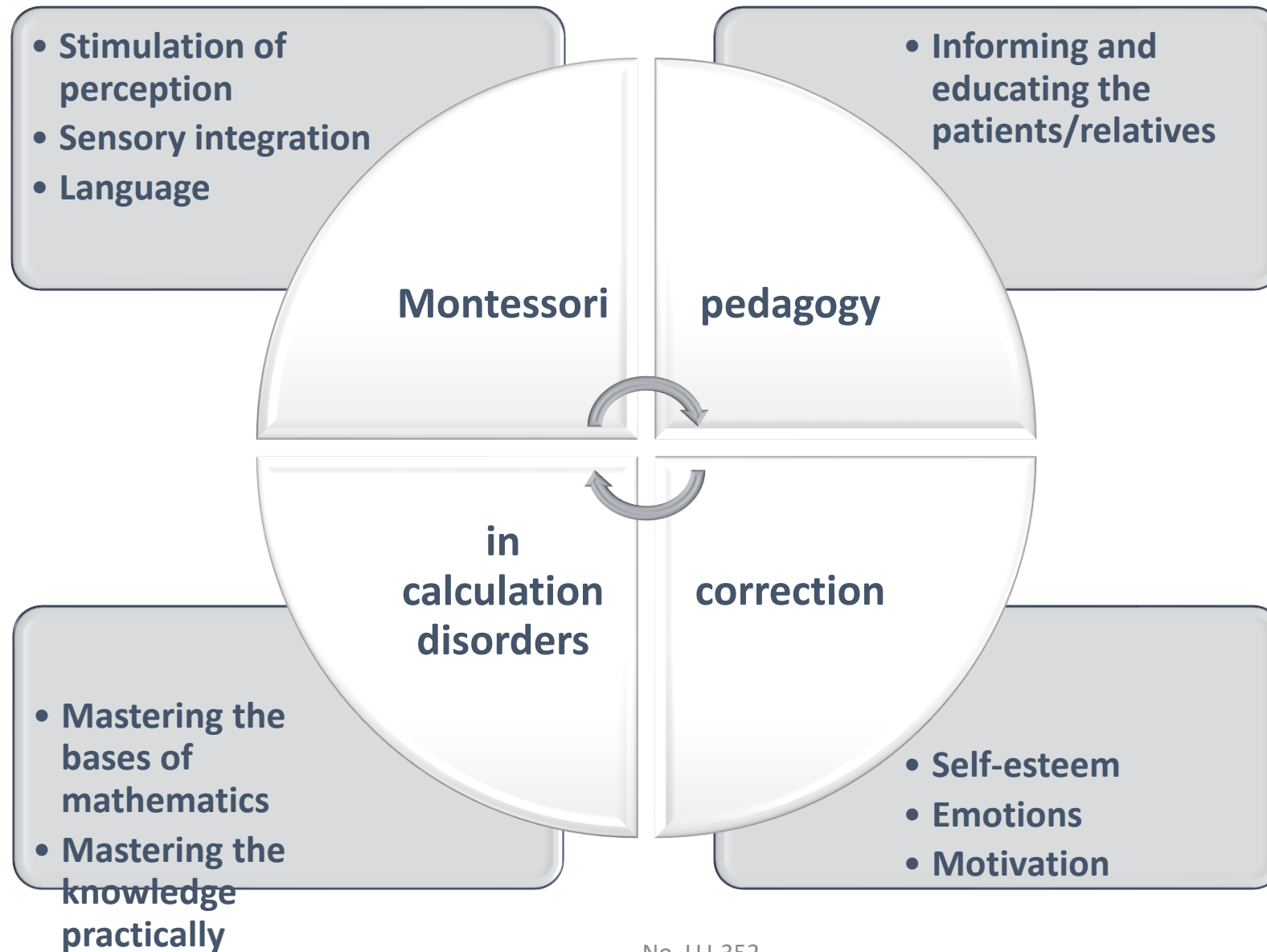
- **Receptive disorders** – problems with recognition of numbers.
- **Creative disorders** – problems with understanding the calculation functions.
- **Semantic disorders** – problems with understanding the meaning of numbers.
- **Amnestic disorders** – numbers or calculation functions are forgotten.
- **Orientation (optic) disorders** – digits in the number are switched in places, mirror script.
- **Expressive disorders** – problems with verbal or graphic presentation of numbers.





From a specific to abstract...



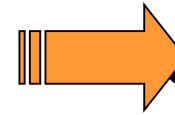


Cosmic education



Importance of Montessori therapy

Self-activity, action



Development, habilitation

- Proprioception
- Kinaesthesia
- Senses
- Perception
- Thinking and speech
- Imagination
- Attention
- Memory
- Personality (self-evaluation, self-confidence, self-respect, self-control)



Result – improvement of person's life quality!

Conclusion

- Montessori pedagogy and therapy are regarded as the methods of wholism approach that implement the principles of visibility, systematicity, succession, development and human pedagogy both in pedagogy and in therapy.
- Montessori didactic materials, correct interpretation thereof and adaptation according to person's needs and free possibility of work (independent exercises) creates the preconditions for materialization of abstract terms and provision/restoration of knowledge to children and adults in the aspect of education and general education and the corrective work.
- Montessori therapy is used worldwide in correction of development disorders and disorders of neurologic origin at different ages - at the age of child and pupil, at adult and senior age.