# Higher mental functions of students in situation of inclusive education

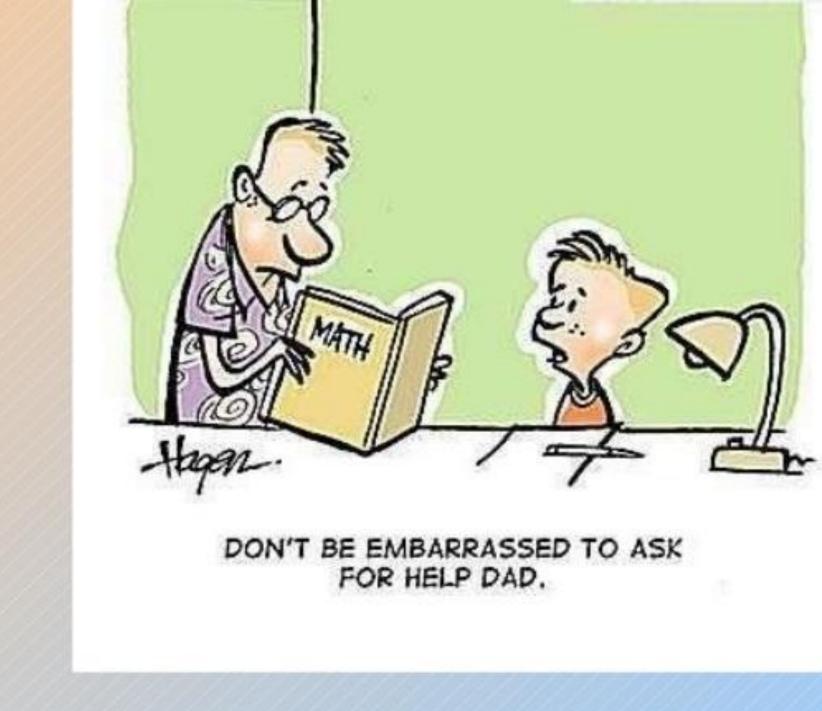
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#### **Higher mental functions**

- memory in young children this is limited by biological factors. However, culture determines the type of memory strategy we develop. E.g., in our culture we learn note-taking to aid memory, but in pre-literate societies other strategies must be developed, such as tying knots in string to remember, or carrying pebbles, or repetition of the names of ancestors until large numbers can be repeated.
- Vygotsky refers to tools of intellectual adaptation these allow children to use the basic mental functions more effectively/adaptively, and these are culturally determined (e.g. memory mnemonics, mind maps).

# Social support as a higher mental function

- According to Vygotsky (1978), much important learning by the child occurs through social interaction with a skillful tutor. The tutor may model behaviors and/or provide verbal instructions for the child. Vygotsky refers to this as cooperative or collaborative dialogue. The child seeks to understand the actions or instructions provided by the tutor (often the parent or teacher) then internalizes the information, using it to guide or regulate their own performance.
- A modern term SOCIAL SUPPORT I think can be used for explaining social interaction with a skillful tutor.



# Educational situation with tutor Zone of Proximal Development

Skills too difficult for a child to master on his/her own, but that can be done with <u>guidance</u> and <u>encouragement</u> from a knowledgeable person.

What is not Known



What

Known

is

#### Hardiness (жизнестойкость) as a result

- Hardiness is a personality style first introduced by Suzanne C. Kobasa in 1979.Kobasa described a pattern of personality characteristics that distinguished managers and executives who remained healthy under life stress, as compared to those who developed health problems. Hardiness allow person to be effectively in difficult life situations. The Hardiness questionnaire was made by Salvatore Maddi
- For disabled students hole life is a difficult situation and education too. And development of hardiness is a mark of personality development for all students

#### Parralelogramm of development higher mental function





Рис. 11.1. «Параллелограмм развития» согласно результатам эксперимента А. Н. Леонтьева.

## parallelogram of development

- Leontievs famous cross sectional study was done with three age groups
- 1)preschoolers and elementary schoolchildren
- 2) middle schoolchildren
- 3) adults
- 2 sets of pictures were assigned to normal and mentally retarded participants . The first set of pictures was to be remembered with the help of the other set.
- In the first series of experiments the participants were asked to remember as many as possible of 15 pictures that were given to them. In the second series the same task was accompanied with an instruction to use an additional set of similar but not identical- pictures that might help the subjects to remember those in the first set. The results of this study are often presented as a figure with two curves indicating recall rate in the 3 age groups in the situations of «direct» and «mediated" remembering.
- Quite predictably, both curves on the chart show considerable growth of recall rate with age. However interestingly enough while younger children and adults remembered the items virtually equally well (rather equally bad in case of younger children) in both experimental conditions of mediated and non mediated remembering. The middle school children demonstrated a tremendous difference in their remembering abilities in the situation of facilitated and aided remembering approaching that of the adult subjects. The figure formed by two curves on the chart starting and ending virtually in the same points and diverging in the middle is described by Vigotsky Luria Leontiev as the parallelogram of development

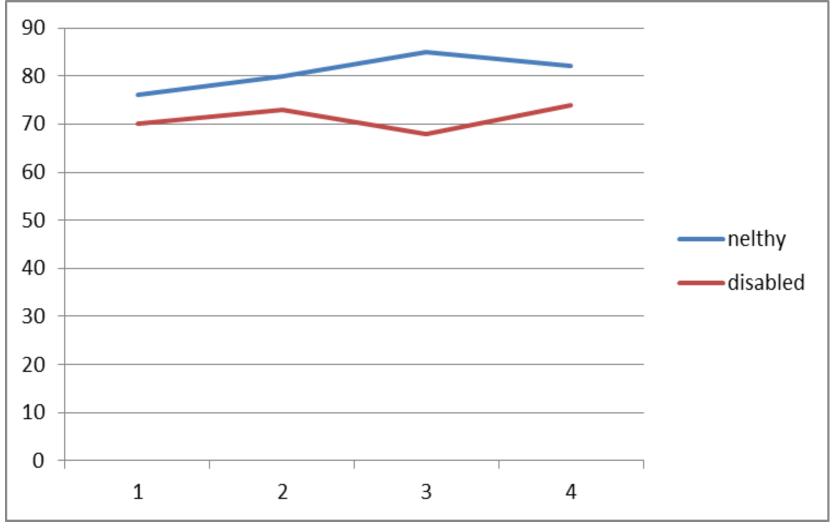
## My methods

- The questionnaire of **social support** (Sarason) included scales: *close relations, social network size, satisfaction of social support*
- Life meaning orientations (D.A.Leontiev) included scales: *purpose in life, full of life, satisfaction with self-realization, control of life, control of my functions*
- Hardiness questionnaire (S. Maddi)
- Self-efficacy questionnaire

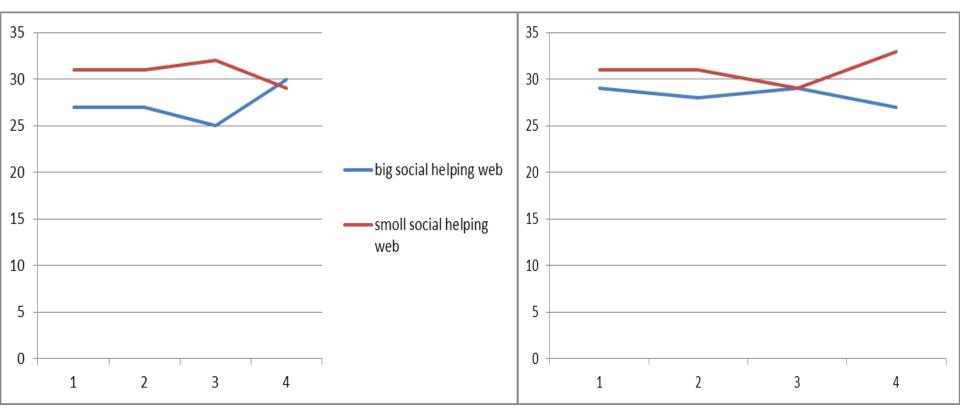
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### Change of hardiness during education from 1 to 4 course (disabled N=142 and healthy N= 399, students)



### Satisfaction of social support depending on number of helping people changing from 1 to 4 course of education disabled healthy



# Changing in noetic orientations from 1 to 4 course

