



"ICT tools for pupils with SLD (Specific Learning Disabilities) and dyslexia".

Tallin, 17th of October 2014



Compensatory tools

ITALIAN LEGISLATION STATES THAT COMPESATORY TOOLS
HAVE TO BE SUPPLIED IN SCHOOL TO CHILDREN WITH
DYSLEXIA

WHAT ARE COMPENSATORY TOOLS FOR?

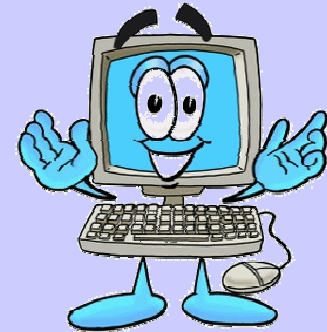
They help to overcome the so called "automation difficulties" the dyslexic child has to face at school

Aim of the compensatory tools

To help the child in gaining autonomy in reading, writing and calculation

Through:

- Specific ICT tools
- Adapting strategies and the school environment



WHY ICT

Informatics is used in every context

The reasons why it has been a big success are various:

- Velocity
- Memory
- Reproducibility
- Possibility to process data
 - Exchange



WHY ICT

The researches say that dyslexic persons are much more motivated and less stressed

if they use informatics to do the homeworks or other assignments that require the use of writing and reading skills

(Hecker, Burns, Elkind, Katz 2002)

- Informatics is the best substitute of the abilities that have never become automatic (writing, reading)

It permits a complete use of the intact abilities:

Intelligence and Fantasy

Compensatory tools

- Hardware -

Computer	Basic tool. It has to be equipped with loudspeaker and microphone
Scanner	Necessary to convert the paper document into a digital one.
Pen Scanner	Small version of the scanner
Headphones	Usable instead of loudspeaker

Compensatory tools

- Software -

Word processor	Text editor equipped with spellchecker and text to speech
Text to Speech	It allows to listen a digital text downloaded in the computer
OCR	Software that convert the scanned image into text
Speech recognizer	It converts, through a microphone, the pronounced words into a digital text
Internet	The biggest existing source of material; it is possible to read the texts through a text to speech

Compensatory tools - support in Reading

TEXT TO SPEECH - Some examples (for windows):

- **DSpeech** is a freeware program that reads aloud the written texts and choose the sentences according to the users' answers.
- **CARLO Mobile** is a set of applications grouped in one interface, recommended for people that prefer an oral communication and a verbal learning.
- **SuperQuaderno (Super Notebook)** is a text editor that make easier the learning of writing and reading skills using mulimedial objects; it is particularly recommended to those children affected by spelling difficulties
- **Balabolka**, a freeware "screen reader"; it reads digital documents and play them

Compensatory tools: support in WRITING

SPEECH RECOGNITION - An example (for windows):

- **Dragon Naturally Speaking** is one of the best speech recognition software.
- The user is able to dictate and have speech transcribed as written text
- The Dragon does it very quickly - with a speed three times higher than the typing speed
- It is very precise - 99% of precision
- It is easy to use
- It starts very quickly recognizing the users' voice
- In addition, voice profiles can be accessed through different computers in a networked environment, although the audio hardware and configuration must be identical on both machines.

Compensatory tools: support in UNDERSTANDING / MEMORY

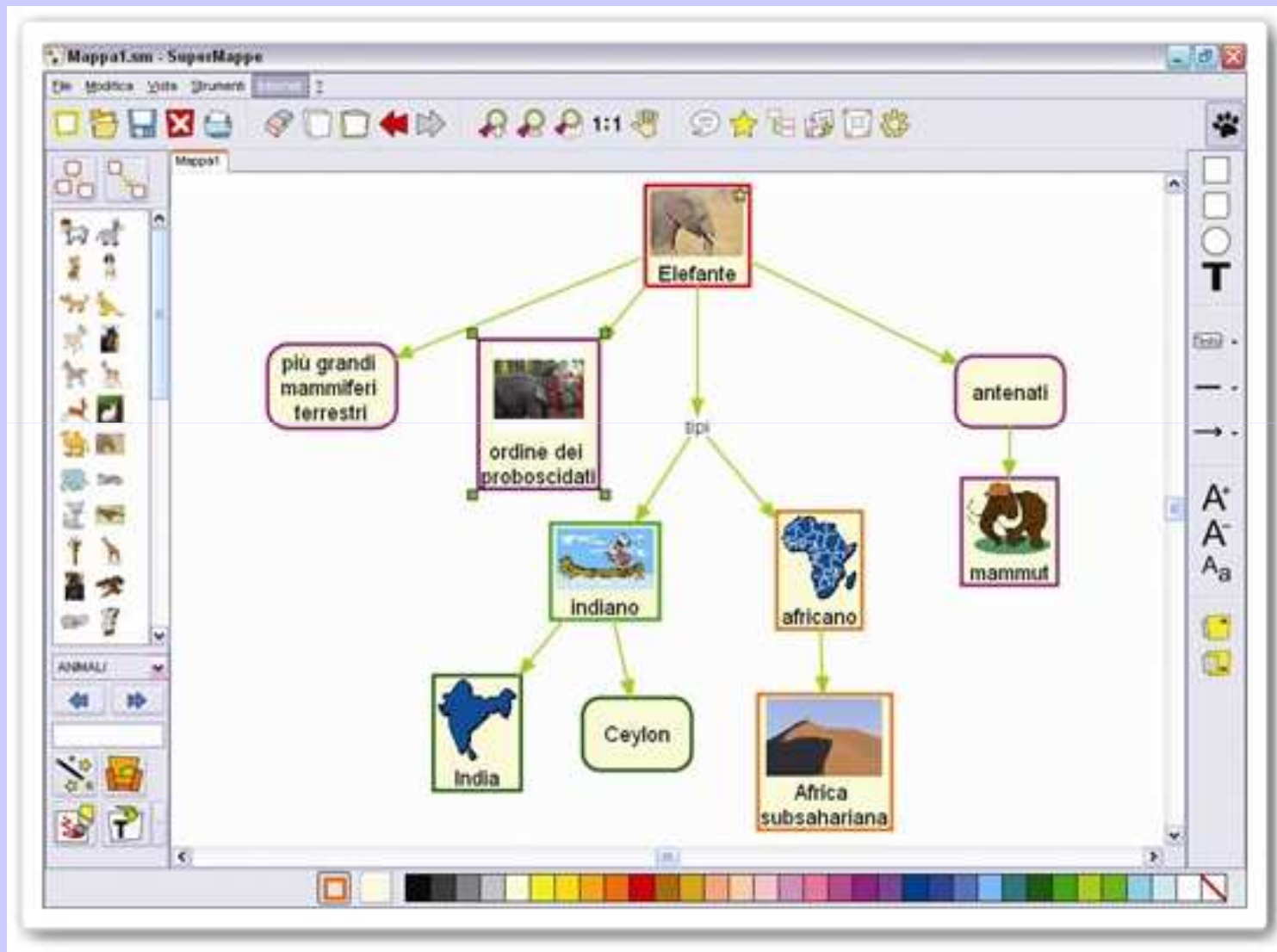
Some examples (for windows):

- **CMAP** is a freeware for creating concept maps, also usable for representing others knowledge models. It speeds the creation of complex maps and offers the possibility to rationalize and represent ideas in a very advanced way, giving the user the possibility to graphically personalize the maps. It is used worldwide in all domains of knowledge and by users of all ages to graphically express their understanding
- **SuperMappe V6 and Hypermaps** are software for making multimedial maps, that is, concept maps containing multimedial elements like videos, audio documents links to web sites and text to speech .

Concept Maps: what are they for?

- ☺ When the pupil says "I have in my mind what I want to say but I don't know how to express it"
- ☺ or " I have so many ideas in my head!"
- ☺ and " what should I say first? What next?.. I' ve got lost!"

CONCEPT MAP- EXAMPLE



Other supports

- Books (about dysgraphia, dyscalculia, etc.) containing exercises sheets targeted on the problems
- Audiobooks
- Freeware, downloaded from specific Internet Sites
- (in Italy: www.ivana.it, www.maestranonella.it)

Very nice stuff!
...but we do not
have either
computer or
programs at school

