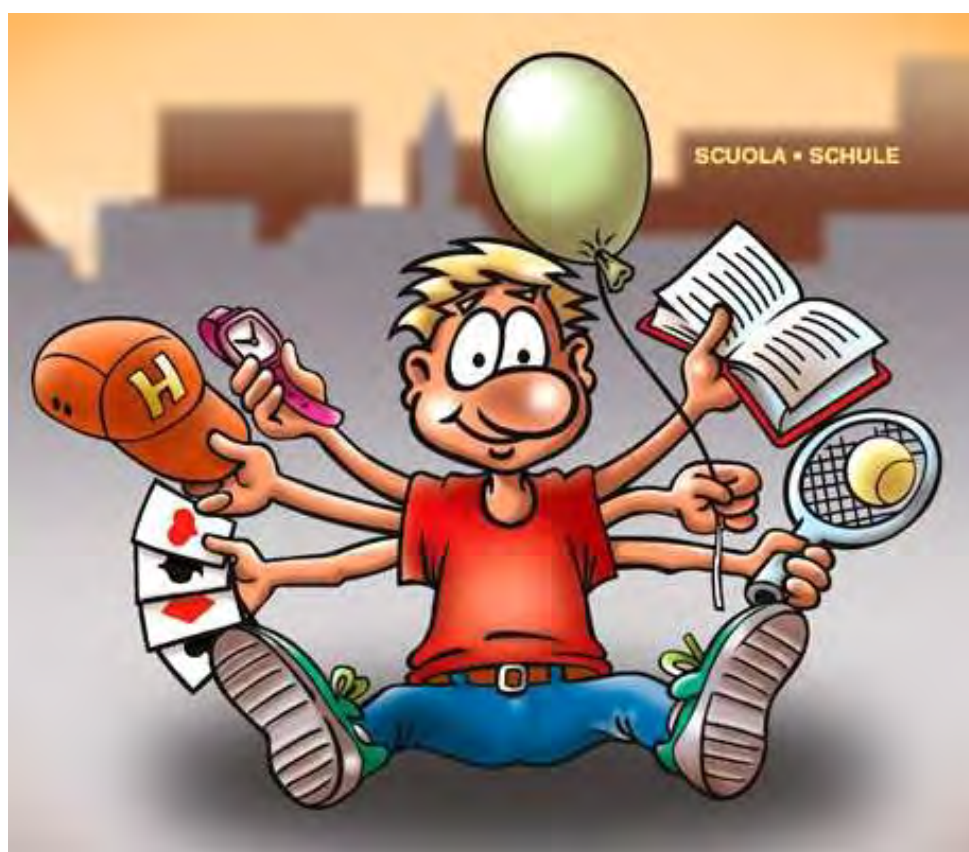


TEACHERS' GUIDE



COMENIUS
dyscovery I: discovering and supporting dyslexia in the early years
2009-1-IT2-COM06-06289-1



FORWARD

The idea of creating a Guide for Parents came from a group of professionals from Italy, Bulgaria, Cyprus, Romania and Turkey, working in the field of Dyslexia, specifically in Learning Disabilities (LD). Our aim is to help both children with Dyslexia and their teachers. This Guide is a result of the shared experience and effort of professionals from Italy, Bulgaria, Cyprus, Romania and Turkey:



Italy - Scuola dell'Infanzia Paritaria "La città del Sole.Vasto"

Cyprus - New Hope Special School

Bulgaria - Resource Center for Supporting the Integrated Education and Training of Children and Students with Special Educational Needs.

Romania - Gradinita cu program normal Gornet, judetul Prahova

Turkey - Özel Isikkent Anaokulu

In producing this guide, the intention is to provide ideas for teachers on how they can best help dyslexic children at the pre-school age (3-6) in the classroom situation and provide children with a smooth transition from the early years to the elementary school. The Comenius project has given the opportunity to the partner countries to create and publish this book as a part of the "Life Long Learning" program. Indications are given to enable the classroom teacher to identify possible cases of specific learning difficulties and direction is given on how, where and when to obtain appropriate advice and assistance. This guide is an easy-to-follow guide, and gives the possibility to extend some of the ideas.

Guidelines are given on assessment and check lists are provided to the teacher. Guidelines are also given on various areas of the curriculum which may be affected by the child's difficulties. Suggestions are made at various points and sample activities are provided which may help the dyslexic child. Children with dyslexia characteristics will inevitably differ in the degree to which they are affected by their specific learning difficulties and the activities suggested will require to be adapted to individual needs.

Provision for children with specific learning difficulties vary between the European Countries and each country has its own procedure for helping dyslexic children. Teachers will require establishing the level and support which is available to them and what is provided by their school.

"This publication reflects the views of the authors only, and the Commission cannot be held responsible for any use which may be made of the information contained **therein.**"



Contents

HISTORICAL BACKGROUND AND CURRENT STUDIES	6
Background.....	6
Definition	2
Early medical perspectives	4
Transition from a medical to an educational perspective.....	7
The development of specific educational programmes.....	7
CURRENT REASERCH INTO CAUSES	11
Brain scans used to find Dyslexia clues	11
Unravelling dyslexic brains	12
Wake Forest University School of Medicine develops simple test for dyslexia.....	12
Fatty acid deficiency signs predict the severity of reading and related problems in dyslexic children.....	13
Bright lights – hope for dyslexia	13
Cause of dyslexia - chromosome 18.....	13
Helping dyslexics in the blink of an eye.....	13
Fashionable “cures” for dyslexia	14
SIGNS AND SYMPTOMS OF DYSLEXIA AT PRE-SCHOOL AGE	15
Typical characteristics of ages 3-6.....	15
EARLY SIGNS OF SPECIFIC LEARNING DIFFICULTIES ARE OBSERVED IN:	15
Motor skills	15
Cognitive skills	16
Language skills.....	16
Emotions and behavior.....	16
DYSLEXIA PRE-SCHOOL CHECKLIST	17
CHECK LIST.....	17
ASSESSMENT AND DYSLEXIA	18
Why assess	18
Dyslexia diagnosis.....	18
Dyslexia screening	18
Dyslexia early screening test (DEST).....	19
Bangor dyslexia test	19
LUCID CoPs	20
Lass junior.....	20

Dyslexia and Mental Maths	40
General Advice, Multisensory Learning.....	40
Visual Cues and Mnemonics.....	42
Forming Numerals.	42
Memory, Sequencing.....	42
Sequencing	43
MUSIC AND DYSLEXIA.....	44
Research	44
Problem areas for people with dyslexia	44
Rhythm and timing	44
Rhythm and timing exercise.....	45
When variations with three or four claps are exhausted, mix in some foot tapping.	45
Build up to a variety of up to six taps or claps:	45
Reading music.....	46
Notation and language	46
Problem areas for people with dyslexia	47
MULTISENSORY LEARNING.....	47
HOW TO PREPARE A CHILD FOR A SMOOTH TRANSITION BETWEEN PRE-SCHOOL AND SCHOOL.....	48
Fine Motor skills Improvement Exercises.....	49
Exercises to increase hand-strength.	49
Hand work-rate Increasing Exercises	49
Spatial Orientation Improvement Exercises.....	49
Phoneme Gnosis and Sound Analysis.....	50
Language Development Exercises	50
Vocabulary Development.....	51
Building vocabulary, listening skills, and understanding of print:.....	51
Models of Activities Performed in Math and Music.....	52
MATH ACTIVITIES.....	52
Pattern: little-big-little-big.....	52
COUNTING	53
Music	54
Teaching examples.....	55
References.....	70



HISTORICAL BACKGROUND AND CURRENT STUDIES



Background

The term and concept of “dyslexia” originated in the late 1800s when two researchers (Dejune & Bastian) found that a variety of neurological problems accounted for reading problems in their patients. Language processing became the basis of the concept and much of the early research in the field was conducted in clinics where speech clinicians were working with victims of war.

From then until now, the pathway of “dyslexia” research has been quite different and generally inclusive of an array of topics such as delayed language development, light sensitivity, oral reading, directional confusion, memory deficits, problems with attention, right-left confusion, reduced naming rates, motor sequencing problems, verbal processing deficits, family history, verbal-performance IQ split, and social behaviour problems.

Today "Dyslexia" is the most recognizable term in the field of learning disabilities. It is typically linked with a child's inability to learn to read. There are almost as many definitions of dyslexia as there are different dyslexia organizations. Different cultures and professions describe it according to their perspective. In fact there is no right or wrong answer as there is no single acknowledged definition for dyslexia. Each individual with dyslexia will be affected differently but tend to have difficulties in some of the following areas:

- Reading
 - Writing
 - Spelling
 - Expressing thoughts
 - Sequencing
-

- Screening for identification may be through a paper test using: DEST or Bangor Dyslexia Test, or a computer program such as: Lucid Baseline Assessment, Lucid KS1 CoPS, Junior LASS, LASS, Instines /IDEAS.

Dyslexia early screening test (DEST)

Age Range: 4 years 6 months to 6 years 5 months

The Dyslexia Early Screening Test - Second Edition (DEST-2) battery contains screening tests of attainment and ability. These determine whether a young child is experiencing difficulty in areas known to be affected in dyslexia. An 'at risk' score for dyslexia determines whether further in-depth testing should be undertaken. A profile of skills provides valuable information that can be used to guide in-school support.

The **DEST-2** consists of 12 subtests:

- Rapid naming
- Bead threading
- Phonological discrimination
- Postural stability
- Rhyme/Alliteration
- Forwards digit span
- Digit naming
- Letter naming
- Sound order
- Shape copying
- Corsi frog
- Vocabulary (group/individual).



Bangor dyslexia test

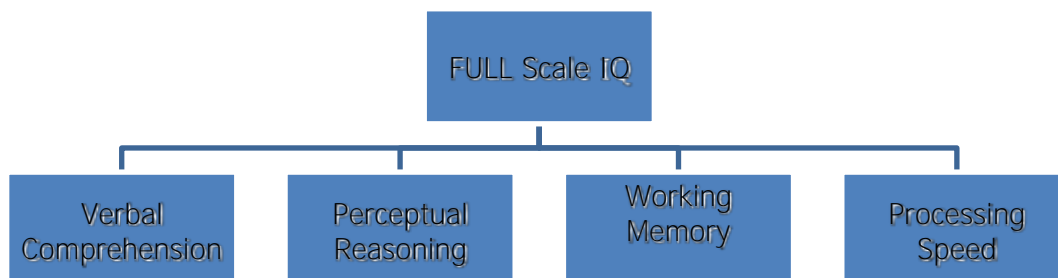
The *Bangor Dyslexia Test* is a screening test for dyslexia that has been available for several years. It embodies a fairly eclectic but pragmatic approach that reflects the theoretical inclinations of its creator and the research knowledge available at the time of creation.

compared to the performance of a group judged to represent the population (from which that individual has come). The standardized test is the mainstay of the psycho-educational assessment process along with an analysis of the history (including previous assessments and reports) and clinical observations.

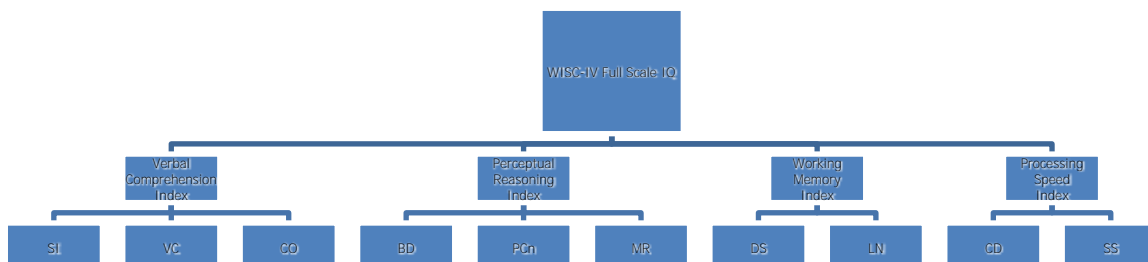
Some Assessment instruments focusing on cognitive functioning:

- Wechsler Preschool and Primary Scale of Intelligence – Third Edition (WPPSI-III) (Wechsler, 2004) (2y 6m to 3y 11m; 4y 0m to 7y 3m)
- Wechsler Intelligence Scale for Children - Fourth Edition (WISC-IV) (6y-16y 11m)
- Wechsler Adult Intelligence Scale-Third Edition (WAIS-IV) (Wechsler, 1997) (16y-89y)

WISC-IV has four specific cognitive domains, (Indexes) which together contribute to the Full Scale IQ



The structure of the WISC-IV



What should I expect from the psychologist?

Often when there is a problem with the child in the family , he/she is taken to a psychologist , speech-therapist and/or a team of professionals and all the care and attention is concentrated on the child. Parents themselves might also need help and support in coping with the new situation. Coping with a learning difficulty like dyslexia often costs the parents a lot of effort for understanding and accepting the situation and for engaging the child in specialised activities.

How can the psychologist and speech-therapist help?

They can help ease the sense of guilt, stemming from the child's problem

They support the parents in the process of accepting your child's differences

Psychologist and Speech-therapist Practices provide a secure place, where parents can share their concerns (directly or indirectly related to the child's weaknesses) that parents may have difficulties in discussing at home



They consult with the parents on their interactions with their child and how they can provide support; The psychologist, speech-therapist, parents and teachers (multi disciplinary team) should device an Individual Educational Plan.

What difficulties can be found ?

Difficulties can be found in :

- Perceptive skills
- Spatial-temporal orientation, attention, memory, thinking
- Gross and fine motor skills
- Reading difficulties
- Counting and mathematics skills
- Language difficulties

WHAT CAN PARENTS DO

Don't panic!

Dyslexia is neither a disease, nor a defect or any other kind of shocking concept. What you should remember is that your child probably perceives things differently than most other children. Each child is unique and has his/her unique way to communicate, express, play, learn, etc.



What should you do if you notice signs of dyslexia?

1. Talk to the class/group teacher.
2. Turn to a professional- psychologist, speech-therapist.

Don't compare the child to other children!

It is easy to say, but practically you should always encourage and foster your child in their activities, should not expect them to have the same achievements as their peers do, direct them to activities that would turn to be successful for them.

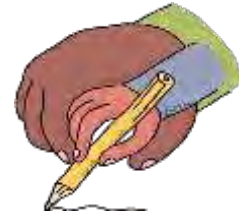
Several types of mistakes exist:

Do not expect and require too much, underestimating the child's abilities, overlook- not pay enough attention to the child's problems or delay the solution until problems have become aggravated.

MG, mother of AG – age 5, 6: He is quite lazy, doesn't want to do his home-work. I try to discipline him, but he won't listen... refuses to work, explaining that it's hard and he can't .There is nothing I could do to make him listen...and he can't even tie his shoelaces!

Mistakes of the mother are: scolding the child for when he cannot do something, thinking that he doesn't make enough effort, that he is lazy; initially she is strict and exacting, but after that just gives up, thinking it is not within her powers.

It is quite important, for a parent to participate actively in defining the goals and approaches towards the problems the child is facing. A prerequisite for that is the daily contact and written communication between parent and teachers (specialists). Any support given by the parents increases the chances for success.



In such a situation it is quite useful for the parents to have a plan, such as:

1. Teacher is to be informed and help is to be sought from experts, who will be ready to work with the child for as long as needed.
2. Sharing with the family the various activities needed to implement the expert's instructions.
3. Implementing measures that will motivate the child to face challenges at school, home and with his or her social life.
4. Direct the child towards activities that will turn out to be successful and build his confidence.
5. Periodical discussion with experts and implementation of the individual plan.

The plan should include activities upon which the child should be successful and build confidence. Parents should take into account that the difference between their child and any other child is the fact that their child learns differently.



u14883784 fotosearch.com

Small steps

Teach math concepts sequentially and in small steps. Do not move on to another concept until the child is ready and thoroughly understands the preceding concept. For example do not move on to counting backwards until basic counting has been mastered. The following exercises can be beneficial in reinforcing the relationship of numbers to actual quantities.

Utilise the same multi-sensory approach used to teach dyslexic children to read. Introduce these methods as games keeping them a fun activity. If the child becomes tired, seems distracted or bored at any point move on to another activity or take a break for a while.

Counting to 100

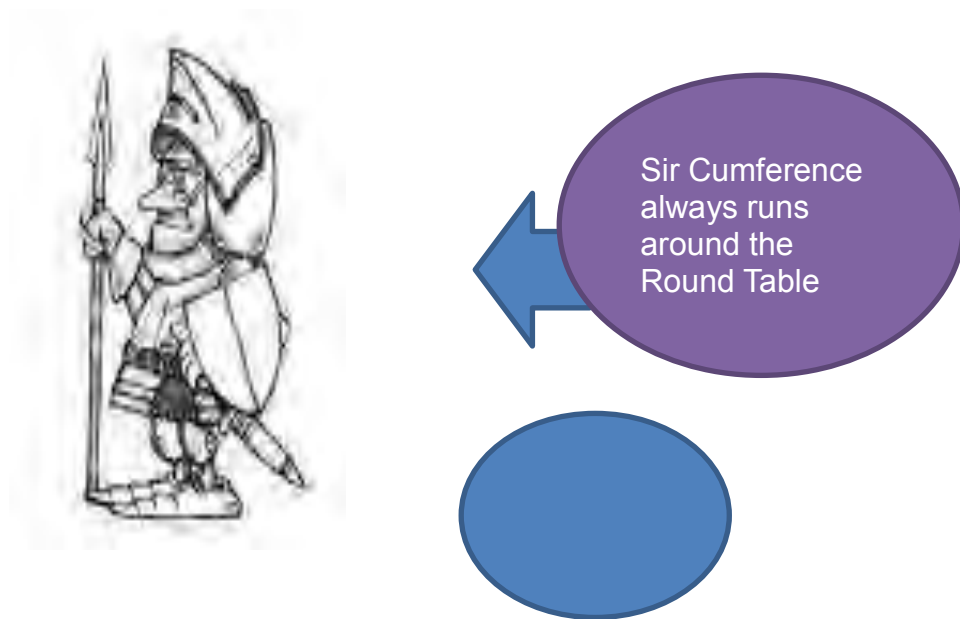
Have a dyslexic child arrange 100 counters in a long line on the floor. Have him place a marker after each ten. The child can then practice counting all the way through to 100. Teach tens by using a different coloured counter in place of the tens number so that they easily stand out. After that he/she can learn to count by fives.

The counting of numbers by ten and five will help the child immensely when it comes to multiplication and time telling skills. Have the child count forwards until they can do so fluently then they can start to count backwards. Practicing counting can be done in any situation, counting cars as they pass by or stairs as they climb up them.

Call out a number and have the child call out the following one. At first the hardest numbers for the child to remember are usually where there is a change of tens as in 29 to 30.

Relate mathematical story problems to things they like and their friends or family, this way they have the added dimension of visualisation to work with.

Visual Cues and Mnemonics



Forming Numerals.

Use multi-sensory approaches such as:

Tracing with a pen or finger.

Encouraging the pupil to say it as they write.

Highlighting differences with highlighter pens or colors.

Tactile reinforcement using sandpaper, felt or even forming numerals from plasticine.

Ensure models are visible.

Memory, Sequencing

Use memory cues like facial expressions and hand gestures.

If a “clogged” working memory is preventing learning, think of ways around it.

HOW TO PREPARE A CHILD FOR A SMOOTH TRANSITION BETWEEN PRE-SCHOOL AND SCHOOL

Good practices

Training in:

- Movement
- Activities: drawing, music, sport, arts, modeling.
- Use of additional and technical resources: illustration, pictorial cards.
- Use of pointers of direction for orientation in space, at home, games, tasks.
- Games: repeating speech, rhyme, riddles, sayings, talking books.



Individual education plan is oriented to develop:

- gross and fine motor skills
- coordination
- attention, memory, thinking
- cognitive development/ shapes, sizes, space orientation, characteristics, object properties, building notions
- passive and active vocabulary
- correct form and usage of language



Individual support plan should include:

- clear and concrete goals and objectives
- activities for achieving them
- objectives as short as possible
- distributed tasks
- focus on strengths

children write out letters and numbers and sentences very slowly in the rice/sand one character at a time so they can really feel the letters. Between each letter they can just shake the shoe box a little bit which is also nice because if they make a mistake, they just have to shake it and it's gone; there are no leftover marks from a bad eraser that gets embarrassing after so many mistakes. It is a great tactile way to learn letters.

Models of Activities Performed in Math and Music

MATH ACTIVITIES

Children begin the math programme with free exploration, using items from their surroundings. These include such items as buttons, seeds, pebbles collected from the garden etc. Once the children have explored the material through play and experimentation, the material then becomes a learning tool with the guidance of the teacher.



The guided programme begins with pattern. Pattern is the essential basis of math. Through the process of patterning children learn problem solving.






Pattern: little-big-little-big

After patterns, children work on 'grouping' in math. By sorting and classification activities children learn analytical thinking.

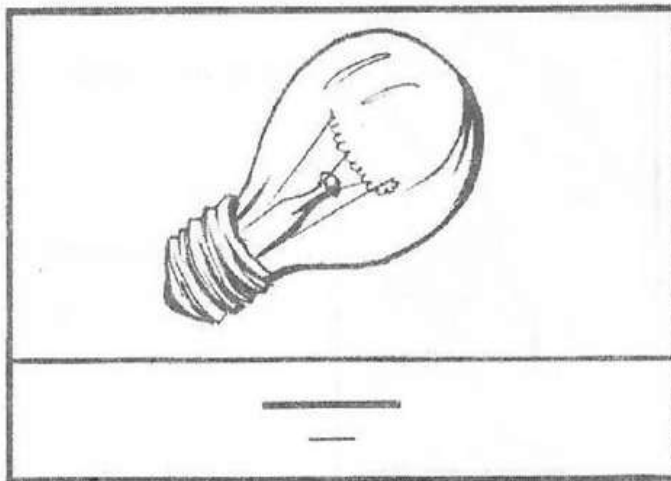




I SAY ONE, YOU SAY MORE!

SYLLABLES GAME



Problems when counting in series

- **Purpose:** Counting from a group of items. Referring to numeric pictures and quantitative comparison.
- **Materials:** worksheet №3, №3A

Tasks:

1. Count the animals (app. №3)

Instructions: Count the number of ladybugs and snails. Draw as many points on the mushrooms, as there are ladybugs or snails under it.

References

Alpha to Omega - by Beve Hornsby, pub. Heinemann

Bishop, D.V.M. (1989). Unfixed reference, monocular occlusion, and developmental dyslexia: a critique. *British Journal of Ophthalmology*, 73(3), 209-215.

Brady, S., Shankweiler, D., & Mann, V. (1983). Speech-perception and memory coding in relation to reading-ability. *Journal of experimental child psychology*, 35(2), 345-367.

Bright Solutions for Dyslexia, Inc.

Broca, P. (1861). Perde de la parole. Ramollissement chronique et destruction partielle du lobe anterior gauche du cerveau. *Bull Soc Anthropol*, 2, 219.

Broca, P. (1865). Sur le siege de la faculte du langage articule. *Bull Soc Anthropol*, 6, 377-393.

Critchley, M. (1964). *Developmental dyslexia*. London, UK: William Heinemann Medical Books Limited.

Critchley, M. (1970) *The Dyslexic Child*, London, Heinemann.

Dejerine, J. (1892). Contribution a l'etude anatomique et clinique des differences varieties de cecite verbale. *Memorires de la Societe de Biologie*, 4, 61-90.

Dyslexia: The evolution of a scientific concept JACK M. FLETCHER
The International Dyslexia association

Dyslexia: The Current Status of the Term T. R. Miles

WHY CAN SOME CHILDREN NOT READ? HUI-HUA [CAROLINE] HSIEH

Dyslexia reading and the brain, Alan a Beaton

Dyslexia and Self-Concept by Robert Burden

Dyslexia and Literacy edited by Gavin Reid

Dyslexia - a Practitioner's Handbook - by Gavin Reid, published Wiley

Dyslexia? Assessing and Reporting: the PATOSS Guide

Dyslexia in Context: Research, Policy and Practice (Dyslexia Series (Whurr)) [Paperback]

Gavin Reid (Author), Angela Fawcett (Author)

Eglington, E. and Annett, M. (1994) 'Handedness and dyslexia: a meta analysis', *Perceptual and Motor Skills*, vol. 79, pp. 1611-6.

Everatt, J. (1997) 'The abilities and disabilities associated with adult developmental dyslexia', *Journal of Research in Reading*, vol. 20, pp. 13-21.

Everatt, J. (1999) (ed.) *Reading and Dyslexia: Visual and Attentional Processes*, London, Routledge.

Whiteley, H.E. and Smith, C.D. (2001) 'The use of tinted lenses to alleviate reading difficulties', Journal of Research in Reading, vol. 24, pp. 30–40.

Whiting, P.R., & Robinson, G.L.W. (1988). Using Irlen coloured lenses for reading: a clinical study. Australian Educ. Develop Psychologist, 11 , 7-10.