



at UNESCO, Paris

February 3rd, 4th, 5th

Best practice in the teaching of reading and writing

- with simultaneous interpretation in English and French

Aim

To address illiteracy that persists in all regions of the world by bringing together education authorities' teacher-training experts to share their experience and knowledge.

The World Dyslexia Forum 2010 will:

- provide scientific understanding of how the brain reads
- explain how children and adults with dyslexia - over 5% of the population - learn differently, and encourage systematic provision of appropriate teaching
- through different languages and cultures, explore approaches that work best for children and adults with dyslexia
- review prototype teacher learning programmes that promote literacy for all, reducing failure and drop-out
- create links and partnerships
- introduce online forums and networks for continuing professional support

- establish a platform for a world-wide network of supportive forums.
Prior to the Forum, education authorities will be invited to endorse our manifesto at www.dyslexia-international.org :

'We support free and fair education available for all, and equal opportunities for people who struggle with reading and writing.'

Dyslexia International's plain language description of dyslexia

Dyslexia is a neurologically-based, life-long condition, which is often hereditary. It results in problems with:

- reading
- writing
- spelling

and is usually associated with difficulties in:

- concentration
- short-term memory
- organization.

Dyslexia is *not* the result of stupidity.

It is not caused by:

- poor schooling
- poor home background
- poor motivation for learning

But poor visual and hearing problems or poor muscle control can be associated.

'People with dyslexia have many talents that just do not happen to include reading and writing.'

John Stein, Professor of Physiology, University of Oxford, also Chair, Dyslexia International's Scientific Advisory Committee

For formal and academic definitions of dyslexia, see www.dyslexia-international.org.

Well-documented evidence shows learners with dyslexia will cope best with their difficulties if the nature of their dyslexia is understood early. This means that teachers will need training as soon as possible in methods adapted to these learners' needs.

PROGRAMME

3 FEBRUARY - DISCOVERY, THE SCIENCE

08.00 REGISTRATION – TEA/COFFEE

10.00 Welcome and opening remarks by UNESCO Goodwill Ambassador, Her Royal Highness The Grand Duchess Maria Teresa of Luxembourg

Chair: Professor John Stein, Professor of Physiology, University of Oxford, UK

(Profiles of all chairs and speakers, and abstracts of presentations are given at the end of the programme.)

10.30 **Teaching the brain to read**
Dr Duncan Milne, Director for Literacy Tools, Dyslexia International, Brussels

11.15 **The phonological deficit in developmental dyslexia**
Dr Franck Ramus, Laboratory of cognitive science and psycholinguistics, Department of Cognitive Studies, Ecole Normale Supérieure, Paris, France

12.00 LUNCH

Chair: Professor Linda Siegel, Dorothy C. Lam Chair in Special Education at Yale, USA; University of British Columbia, Canada

14.00 **The brain basis of reading difficulties**
Professor John Stein

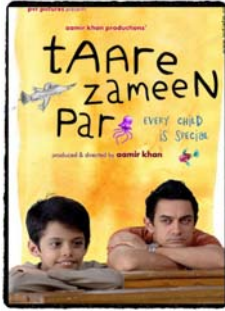
14.45 **Hemispheric specialization and dyslexia**
Dr. Maria Luisa Lorusso, Neuropsychologist, Scientific Institute, E. Medea, Italy; Lecturer in Remediation of Developmental Dyslexia, University of Milan-Bicocca, Italy

15.30 TEA/COFFEE BREAK

16.00 **Questions and answers**

Chair: Professor Angela Fawcett, Director of the Centre for Child Research, Swansea University, UK

17.30



Taare Zameen Par (Little Stars on Earth)

Reception, with extracts from the film presented by the Creative Directors Amole Gupta and Deepa Bhatia with Kate Currawalla, President of the Maharashtra Dyslexia Association, India

4 FEBRUARY – GOOD PRACTICE

Chair: Professor Costas Porpodas, University of Patras, Greece

09.00 Early intervention: identification and appropriate teaching
Professor Linda Siegel

Survey of good practice

Feedback from the six language groups from five regions. Rapporteurs present their findings about teaching and practice throughout the world in six languages. The reports will cover pre-specified topics.

09.45 Arabic – *Dr Sana Tibi, College of Education, United Arab Emirates University, United Arab Emirates*

10.15 Chinese – *Professor Alice Cheng-Lai, The Hong Kong Polytechnic University, Hong Kong, PRC*

10.45 TEA/COFFEE BREAK

11.15 English – *Professor Jenny Thomson, Harvard Graduate School of Education, USA*

11.45 French – *Professor José Morais, Free University of Brussels, Belgium*

12.15 LUNCH

14.00 Russian – *Dr. Elena Grigorenko, Yale's Child Study Center, Department of Epidemiology and Public Health, and Department of Psychology, USA; Adjunct Professor of Psychology at Columbia University, USA, and Moscow State University, Russian Federation*

14.30 Spanish – *Dr Jesús Alegria, Free University of Brussels, Belgium*

Chair: Dr Harry Chasty, Psychologist and international consultant on learning abilities and disorders

Dyslexia in different languages – Revisiting the science

15.00 **Dyslexia in regular orthographies: re-balancing Anglo-centric research**

*Professor Heinz Wimmer, Department of Psychology and
Center of Neurocognitive Research, University of Salzburg,
Austria*

Education reform

15.45 **The Finnish system**

Claude Anttila, AMOPA-Finland

16.30 **Round-up of the day's findings: essential elements of good
teaching practice to insert into teacher-training
programmes**

Dr Harry Chasty

17.15 *Presentation by Olympus*

5 FEBRUARY – INFORMATION AND COMMUNICATIONS TECHNOLOGIES

*Chair: Andrew Law, former Head of BBC Worldwide Interactive
Learning, current Director of Multi-Platform Broadcasting for the
Open University, UK*

09.00 **Using digital learning technologies to support special
needs**

*Diana Laurillard, Professor of Learning with Digital
Technologies, London Knowledge Lab, Institute of Education,
UK; UNESCO Institute for Information Technologies in
Education, Moscow*

09.45 **'Basics for teachers: Dyslexia – How to identify it and What
to do'** – presentation of Dyslexia International's Online learning
course

10.15 TEA/COFFEE BREAK

10.30 **'Dyslexia – How to accompany and support people with
reading and writing difficulties'** – new film from Dyslexia

International demonstrating teaching techniques in the inclusive classroom setting

11.00 **Free and accessible technologies supporting teachers and trainers**

E.A. Draffan, Research Fellow, University of Southampton, UK; ICT education expert

11.45 **Concluding remarks - Presentations/awards to delegates, resolutions, and ways forward**

CLOSE

In the exhibition area, 'Salle des Pas Perdus', beside the Forum's Salle II:

Suppliers of educational materials for people with dyslexia

CECIAA, France; iansyst, UK; Microsoft School Technology Innovation Center, Belgium; Smart Kids, UK; White Space, UK

Rolling screen presentations:

- *Dyslexia Associations' work world-wide* – showing support associations around the world
- Free online resources by *Dyslexia International*:
 - *Language Shock – Dyslexia across cultures*, a 28 minute awareness and training film produced by the BBC, with guides in five languages
 - a do-it-yourself support group hand-book: *Dyslexia Here and There*, with illustrations by Quentin Blake
 - online conference reports by Professors Stanislas Dehaene, José Morais and John Stein on 'Dyslexia: Neuroscience and cognitive psychology'

Teaching, learning and other resources

- books, software and hardware that support learning to read and write in Arabic, Chinese, English, French, Russian and Spanish

Exhibition:

'Creativity beyond words'

- exhibition panels by architect Lord Richard Rogers, furniture designers and others, demonstrating outstanding achievements by people with dyslexia in all walks of life

Profiles of speakers and chairpersons, and abstracts of presentations

Alegria (Good practice, Spanish)



Dr Jesus Alegria Iscoa is an Honorary Professor at the Free University of Brussels. He has spent his entire academic career in the laboratory for cognition and language development. His areas of interest include literacy acquisition with a special emphasis on dyslexia, cross-linguistic comparisons, and reading acquisition in deaf persons. In collaboration with colleagues in both Belgium and Spain he has worked on setting up tools for evaluating phonological processing and for the basic mechanisms of reading and spelling.

Abstract

Scientific progress has shown that dyslexia is a biologically-grounded deficit affecting phonological processing which, at the behavioural level, results in poor reading. The report will examine how 'Good practice' should be derived from these findings.

The first concerns the diffusion of well-established scientific information about the precise nature of dyslexia, in all of the social contexts where it occurs. An important point to transmit is that the difficulties with written material for dyslexics are determined neither by intellectual nor motivational considerations. Here, the adequate training of teachers must be a priority.

The second point concerns the early identification of dyslexics. Psycholinguistic research has shown that preschoolers at risk have poor meta-phonological abilities as well as difficulties in tasks involving manipulation of phonological representations such as picture naming, short-term-memory, fine phonological discrimination, etc. This allows early detection of potential difficulties and intervention before formal instruction in reading begins.

Finally, the most adequate methods of teaching and remediation will be examined with special emphasis on the fact that the Spanish spelling system is transparent: it represents words at the phonological level in a fairly systematic manner. Phonic instruction is undoubtedly optimal for persons with dyslexia but also for normal children. Studies conducted in Spanish as well as in other alphabetic languages have shown that meta-phonological training is an efficient tool for remediating dyslexia and also, when used before formal reading instruction, can prevent troubles in reading acquisition. Examples of these activities will be examined.

Anttila (Good practice, Finland)



Claude Anttila is a qualified teacher in the French national system, now retired, having taught for 36 years at all levels in the French Lycée, Helsinki. Director of French studies for four years, and expert in French in the department at national level for higher education from 1998 to 2005. Ms Anttila is a renowned expert and consultant in professional development and examinations. She created a portal for French teachers in Finland, promoting higher visibility of French in the Nordic countries, and also a site 'Action for French'. Ms Anttila presents the Finnish school

system in French-speaking countries and is president of AMOPA-Finland (decorated for services to education in French) and a representative for keeping French alive in Finland.

Abstract - Why reform an educational system?

Confronted by unequal success rates in schools, Finland reformed its system to give all children a good education in order to prepare them for higher education. At the same time it upgraded the professional standing of teachers by improving the quality of their training. These initiatives to bring more specialized knowledge to teachers were conceived in order to enhance the prospects of young people.

At the beginning of 1980s nobody had been told about dyslexia. In fact its frequency is very significant (9.5 %) but this perception came about after better awareness amongst teachers of children with learning difficulties.

Now the teacher has to teach each child in his or her class according to the child's needs using different techniques which also help all children. This requires a lot of preparation and know-how.

The Finnish system does not make children repeat their year. It integrates children of different social classes with or without learning difficulties and encourages each child in the school to take an active part in life. By including children with difficulties, the reform has brought results which are not worse than elsewhere, as confirmed by the OECD's research.

Chasty (Educational psychology), Round-up of second day



Dr Harry Chasty is a psychologist and international consultant on learning abilities and disorders. He believes that there is a matrix of learning difficulties underlying dyslexia, affecting auditory-phonological, visual and motor skills. He considers that the dyslexic's retardations in literacy, numeracy and the curriculum are attributable to the disparity between the student's limited representational options and teachers' often one-dimensional presentation of the information to be learned. He advocates multi-sensory training and challenges teachers, 'If this child does not learn the way you teach, can you teach the way he learns to develop his skills?'

Cheng-Lai (Good practice, Chinese)



Professor Alice Cheng-Lai was educated at the Universities of Taiwan, Michigan and Hong Kong. She is the Associate Professor in Educational Psychology at the Manulife Centre for Children with Specific Learning Disabilities at The Hong Kong Polytechnic University and Director of the Joint Centre for Child Development and Learning in Peking University, Beijing. She has been conducting research into children with developmental dyslexia and specific learning disabilities for more than 15 years. This includes identification and intervention of children consequently at risk for school failure and how the deficits are best addressed in Chinese-speaking communities.

Abstract

Logistic regression analyses has revealed that Chinese readers with dyslexia were best distinguished from age-matched controls with tasks of morphological awareness, speeded number naming, and vocabulary skill; performance on tasks of visual skills or phonological awareness failed to distinguish the group. Path analyses further revealed that a construct of morphological awareness was the strongest consistent predictor of a variety of literacy-related skills across both groups. Findings suggest that morphological awareness may be a core theoretical construct necessary for explaining variability in reading Chinese.

The nature of the meta-linguistic insights that are important for reading depends upon the writing system. In an alphabetic writing system such as English, the crucial insight beyond the concept of a word is that letters represent phonemes. However, Chinese characters do not encode grapheme-to-phoneme correspondences, but instead character-to-syllable and character-to-morpheme correspondences. So, learning to read Chinese requires rather different insights from young readers than does an alphabetic system.

In the presentation, the reform of Chinese character instruction in Chinese schools will be briefly introduced, the characteristics of Chinese orthography and Chinese orthography-phonology correspondence: regularity, consistency and a new method of character instruction termed *morphological instruction* will be explained. Grounded in psycholinguistic research in Chinese literacy, morphological instruction emphasizes knowledge of the internal structures of the writing system. This method helps children with dyslexia to master the structural rules of different types of characters and to apply rules analytically when learning to read and write new Chinese characters.

Draffan (ICT solutions)



E.A. Draffan trained as a Speech and Language Therapist, before specialising in the field of Assistive Technologies. She has since worked with disabled students in Further and Higher Education, set up an Assistive Technology Centre, contributed to the work of TechDis and other institutions and groups. She is now a Research Fellow at the University of Southampton with interests in the ease of use and accessibility of e-learning and has recently been working on the LexDis project funded by the Joint Information Systems Committee (UK).

Abstract - Free and accessible technologies supporting teachers and trainers

The presentation will explore the pros and cons of using technologies to collaborate with those supporting students with dyslexia: the exciting nature of real time communication versus the issues of threaded forums and mail lists, the use of text to speech and texting along with the importance of participation at all levels without concerns about spell checking and writing accuracy.

A feeling of involvement and the real help that can be provided results in positive outcomes as against the trials of poor connections, costly devices, complex software and time management.

Forums that can be used at any time have been shown to be safe and 'easy to use' environments by some researchers¹. They can provide a more comfortable feeling when personal issues are discussed and possibly act as an alternative to face-to-face groups². The effectiveness of the emotional and informational support that online forums provide has been reported³. Confidentiality may be an issue but usually computer based online forums require registration and passwords, so discussions can be kept away from the public eye if required.

It is hoped that delegates will leave with a clear understanding of the types of free Web 2.0 collaborative online applications available and their accessibility. Individual and group chat and text messaging, webcam / video systems as well as e-mail lists will be discussed and the use of mobile phone technologies for support networks.

1. [Anderson & Kanuka, 1997](#); [Hsiung, 2000](#)
2. [Kramish et al., 2001](#)
3. [Hsiung, 2000](#)

Fawcett (Science - Chair)



Professor Angela Fawcett, Director of the Centre for Child Research, Swansea University, UK, is a leading international researcher into dyslexia. Following experience of dyslexia in her family, Angela was a mature entrant to academia. Her research into dyslexia with Professor Rod Nicolson has influenced both theory and practice (via their dyslexia screening tests). Her approach is broad and interdisciplinary ranging from child and cognitive development to educational screening and intervention, and developmental cognitive neuroscience. Her research focuses on how dyslexic children learn, explains the overlap between different disabilities, and why a dyslexic child can be intelligent but suffer from literacy problems.

Grigorenko (Good practice, Russian)



Dr. Elena Grigorenko, Yale's Child Study Center, Department of Epidemiology and Public Health, and Department of Psychology, USA; Adjunct Professor of Psychology at Columbia University, USA, and Moscow State University, Russian Federation. Her current research includes studies of genes involved in learning disabilities and cognitive processing, with special emphasis on studying minority samples. She has also studied genetic and environmental risk factors for behavioural problems.

Abstract

This presentation will provide a brief overview of the dominant methods of teaching reading in Soviet and modern Russia. Dr Grigorenko will provide comparative analyses of these methods, highlighting both their differences and similarities and illustrate these general comments with available data on the reading performance of Russian children 'then' and 'now'. Given the linguistic features of Russian, special attention will be given to considerations of accuracy and fluency and the comprehension of these single words along with the connected text.

Laurillard (ICT solutions)



Diana Laurillard is Professor of Learning with Digital Technologies at the London Knowledge Lab, Institute of Education, leading research on a learning design support environment, and software for dyscalculia. Previously she was Head of the e-Learning Strategy Unit, Department for Education and Skills, Pro-Vice-Chancellor for learning technologies and teaching at the Open University, and on the Visiting Committee on IT at Harvard University. Currently on the Boards of the Observatory for Borderless HE, the UNESCO Institute for IT in Education (Moscow), the Centre for Applied Research in Educational Technologies (Cambridge), and the Council for the FernUniversität (distance teaching, The Hague), and external examiner at the University of Oxford.

Abstract - Using digital learning technologies to support special needs

As digital technologies become more widespread in schools and communities, it is important to consider the advantages they can bring to SEN (special educational needs) teachers and their learners. There are different types of advantage, for learners, teachers, and parents, linked to different kinds of technologies. Some exploit the online communications aspect of the technology that can link parents into the support programme; some use the interactive quality of teaching programs to motivate reluctant or struggling learners; some offer a data-gathering capability that can help the teacher track learner progress. Even very simple technologies can make a real difference to learners if they are used well.

The presentation will present some examples of technologies used in support of learners with special needs, with particular reference to dyslexia and dyscalculia (a lack of 'number sense' sometimes affecting children who also have dyslexia).

The developing new discipline of 'educational neuroscience' aims to find common ground in the research methodologies of neuroscience, cognitive psychology, and education, and thereby inform both pedagogic practice and further research. The Institute of Education has recently set up a Centre for Educational Neuroscience¹ in collaboration with University College and Birkbeck, at the University of London. One of the linking mechanisms being explored is to embed current pedagogic practice in technology-based adaptive learning exercises, whose design is informed also by the neuroscience findings.

Both literacy and numeracy are potentially amenable to new ways of supporting learners, and an introduction to this approach will be included in the presentation.

1. www.educationalneuroscience.org.uk

Law (ICT solutions), Chair



Andrew Law is the 'Director of Multi-Platform Broadcasting' for The Open University, UK. He is responsible for co-ordinating the OU's BBC, YouTube, iTunesU and other public Internet media strategy. Previously he worked for the BBC for over 20 years as TV Producer, Director and Executive. He was also Head of BBC Worldwide Interactive Learning - a commercial e-learning company owned by the BBC, with clients including UNESCO, DFID (UK Department for International Development), The World Bank Institute, and National College of School Leadership. His interest is in using Web 2.0 (second generation of web development and design) and rich media to catalyse, engage and empower in order to transform learning experiences for all.

Lorusso (Psychology)



Dr. Maria Luisa Lorusso obtained her MA in Psychology at Padua University, and MA in Clinical Linguistics, as well as her Ph.D, at the Royal University of Groningen, The Netherlands. She is now leading a clinical and research team in the Scientific Institute for Diagnosis and Research in Childhood Pathologies, E. Medea, in Bosisio Parini, Italy. Dr Lorusso coordinates research projects on specific learning disabilities. With her group she has been running studies comparing different intervention programmes and investigating the different neuropsychological and genetic factors involved.

Abstract - Hemispheric specialisation and dyslexia (with D.J. Bakker, Vrije University, Amsterdam)

According to Bakker's model of learning to read, initial reading is predominantly mediated by the right cerebral hemisphere, while mature reading should normally be under primary control of the left cerebral hemisphere. This reasoning fits in a historical line of theorizing that began with Orton and that recently was supported by the findings of several neuroimaging and psychophysiological studies. New data on the characteristics of subtypes of dyslexia identified according to Bakker's model will be presented.

So-called hemisphere-specific stimulation (HSS)¹ thus aims at modifying the degree of involvement of specific neuropsychological functions (mainly opposing linguistic to visual-spatial analysis) in the reading process, both by selective stimulation of either the left or right cerebral hemisphere through the (visual or tactile) sensory channels and by the induction of either anticipatory or visually-based deciphering strategies. Previous studies showed that attention, inhibition especially, processing speed, and short-term memory play a role in the effects of visual HSS².

Recent data from rehabilitation studies will be shown where underlying mechanisms are investigated by varying the neuropsychological stimulation procedures in the treatment of dyslexic children, sub-classified as P-types, L-types or M-types.

It will be argued that individual characteristics such as the neuropsychological profile and dyslexia subtype are crucial factors in determining the outcomes of remediation programs.

1. Bakker, 1990)
2. Facoetti, Lorusso, Paganoni, Umiltà & Mascetti, 2003; Lorusso, Facoetti, & Molteni, 2004; Lorusso, Facoetti, Paganoni, Pezzani, & Molteni, 2006

Milne (Neuroscience)



Dr. Duncan Milne was educated at the Centre for Cognitive Neuroscience, University of Auckland, New Zealand. He chairs the British Special Needs Group, United Kingdom. His areas of interest include reading acquisition, theoretical models of reading, cross-linguistic studies of reading and dyslexia. He has also developed a number of educational resources for teaching reading and these are used extensively throughout the world.

Abstract - Teaching the brain to read

In this session we will discuss the neural components of the reading system and the neural circuitry behind reading acquisition. The discussion will focus on how modules are connected together to make a reading system. Special emphasis will be given to teaching methods and the benefits of balanced literacy. Finally, the 'phonological model' will be shown to describe poor reading at the behavioural level, while a 'neurological model' is used to explain the various heterogeneous typologies observed clinically.

Morais (Good practice, French)



Professor José Morais made his career at the Free University of Brussels, where he taught cognitive psychology, psycholinguistics and psychology of literacy. The cognitive consequences of literacy, reading acquisition, and the mechanisms of spoken word recognition are his main research topics. He is President of the National Committee of Psychological Sciences of the Royal Academy of Belgium and was member of the Scientific Committee of the French 'Observatoire national

de la Lecture' for 12 years.

Abstract

The report deals with the roots of dyslexia and the main trends of teaching and of re-education practice in French-speaking countries.

The stages of knowledge and processing in learning to read that may lead to specific backwardness will be considered taking into account the characteristics of the French orthographic code. The scientific literature on the reading behaviour and abilities of French-speaking dyslexics will then be briefly reviewed. The main recommendations that one may be allowed to infer from present scientific knowledge on reading and dyslexia concerning good practice in teaching and re-educating dyslexic children will be presented and justified. Finally, an exploratory survey of the present state of beliefs and practices – right or wrong – of the people and institutions professionally involved with dyslexia in French-speaking countries will be offered, and these practices and beliefs will be confronted with the knowledge and the recommendations presented earlier.

Porpodas (Good practice), Chair



Dr. Constantinos Porpodas is Professor of Cognitive Psychology and Psychology of Reading, at the Department of Education, University of Patras, Greece. He directs the Laboratory of Cognitive Analysis of Learning, Language and Dyslexia, and is scientific director of the Research and Diagnostic Unit of Dyslexia, Reading and Spelling of his university. He helped develop the academic subjects of Cognitive Psychology, Psychology of Reading and Cognitive Analysis of Dyslexia in Greek universities. His main research interests include the analysis of cognitive processes involved in reading and spelling of dyslexic and normal readers in Greek, the development of reading and spelling in normal and dyslexic children, and language (oral and written) comprehension by normal, dyslexic and learning disabled children.

Ramus (Cognitive science)



Dr Franck Ramus graduated from the Ecole Polytechnique and obtained a PhD in Cognitive Science from the Ecole des Hautes Etudes en Sciences Sociales in Paris. He is now a CNRS research scientist at the Ecole Normale Supérieure, where he studies language acquisition, its disorders (dyslexia, specific language impairment, autism). In 2004 he received the Norman Geschwind - Rodin Prize for his post-doctoral research on dyslexia. At the national policy level, he participated in the INSERM 2007 expert report on *Dyslexia, dysorthography, dyscalculia*. He is also a member of the scientific committee of the Fédération Française des Dys, which federates most of the French associations concerned with learning disabilities.

Abstract - The phonological deficit in developmental dyslexia

The majority of children with developmental dyslexia present with a 'phonological deficit'. I will explain the different dimensions of the phonological deficit, review the evidence showing that dyslexic children have difficulties in these areas, as well as the evidence establishing the link between the phonological deficit and reading disability.

Siegel (Psychology)



Professor Linda Siegel was educated at Queens College of the City University of New York and Yale University, USA. She holds the Dorothy C. Lam Chair in Special Education at Yale and also works at the University of British Columbia, Canada. Her areas of interest include identification of children at risk for school failure and dyslexia, one study of which was realized through a longitudinal survey in North Vancouver. She has also studied cognitive aspects of learning disabilities, and bilingual and multicultural education.

Synopsis - Early identification and intervention to prevent reading failure

Early identification and intervention programs can prevent reading failure and reduce the incidence and severity of dyslexia. The results of a 8-year longitudinal study with approximately 950 children have shown that children at risk for reading difficulties can be detected at school entry and, if appropriate intervention is provided, most reading failure can be prevented.

Children in Canada enter school at age 5. In one school district all of the children were screened during the first few months of school entry. A simple screening system, lasting 15-20 minutes and individually administered by teachers or other school personnel was used. The results showed that 25% of the children with English as a first language (L1) and 51% of children with English as a second language (ESL) were detected as being at risk for reading difficulties.

The screening in kindergarten consisted of tasks assessing phonological awareness, letter naming, syntactic awareness, and memory for language. The intervention in

kindergarten and grade 1 consisted of a classroom based program called *Firm Foundations* that stressed vocabulary, phonological awareness, and phonics. A reading comprehension training program, called *Reading 44*, was used in grade 2 and the later grades. In grade 7, at age 13, 1.5 % of the L1 children and 2.1% of the ESL children were dyslexic. These rates are significantly lower than what is found in most jurisdictions.

Children at risk for reading difficulties can be detected at school entry and, if appropriate remediation is provided, most reading failure can be prevented. The program was equally successful with L1 and ESL children. Appropriate early identification and intervention can prevent most reading failure.

Stein (Neuroscience)



Professor John F. Stein, Fellow of the Royal College of Physicians, was educated at Oxford University, UK, and St Thomas' Hospital, London. Currently he is Professor of Physiology at Oxford. His research papers encompass numerous aspects of neuroscience, including anatomy, neurodevelopment, motor function, pain, genetics and metabolism. He is particularly interested in magnocellular deficit within the visual pathway, and is actively involved with organizations for dyslexics and associated research. Professor Stein is the Chairman of Dyslexia International's Scientific Advisory Committee.

Synopsis - Wobbles, warbles & fish: the brain basis of dyslexia

Of the 10 % of children who find it unexpectedly difficult to learn to read fluently, despite normal intelligence, health and education (developmental dyslexia), the majority suffer from visual problems. They complain that letters appear to move around, change places, blur and glare when they try to read. It is probable that these problems are caused by impaired development of 'magnocellular' nerve cells in the visual system. This new understanding of the visual problems has enabled the development of highly effective treatments, such as yellow or blue coloured filters, eye patching and vergence exercises. Other dyslexics experience auditory problems which impair their ability to sequence word sounds or rapidly to translate letters into their sounds. These are probably due to impaired development of auditory magnocells and these weaknesses can often be alleviated by auditory training. Thus impaired development of magnocells lies at the heart of dyslexia. This is partly genetic, partly associated with autoimmunity and partly nutritional. I shall therefore briefly describe some genes that we have identified, the possible role of maternal antibodies and the benefits of fish oils.

Thomson (Good practice, English)



Dr. Jenny Thomson, Certificate of Clinical Competence in Speech-Language Pathology (CCC-SLP), is Assistant Professor of Education at the Harvard Graduate School of Education, USA. Her research focuses upon the developmental pre-cursors of reading difficulties. Following training and experience working as a Speech and Language Pathologist, her doctoral research was the first study to find highly significant relationships between children's auditory rise-time sensitivity and their phonological and literacy skills (Goswami et al., 2002; Thomson & Goswami, in press). Her current research continues to explore the role of rhythm sensitivity in both the identification and remediation of reading difficulties using behavioural and neural measures.

Abstract

This report will summarize best practice for dyslexia across countries where English is the primary language of instruction. Three key elements emerge from questionnaire responses as being critical to ensuring the academic, vocational and socio-emotional success for individuals with dyslexia.

The first element of best practice is **accurate and timely identification** of students who are at risk of, or already manifesting difficulties with reading. Characterizing the 'unexpected' nature of reading difficulties in dyslexia is a complex task and a number of current solutions are presented.

The second element of best practice is **teacher training** and the importance of ensuring both a basic level of dyslexia awareness among classroom teachers, as well as accessible support from specialists with more advanced knowledge.

The final element is the optimal **nature of instruction** for individuals with dyslexia. The importance of intensive and systematic phonics, especially in the early years is emphasized. Emerging insights on best practice for older students with dyslexia are also examined, as well as broader instructional principles to develop organization skills, positive self-esteem and the range of competencies needed for the fullest realization of an individual's potential.

Tibi (Good practice, Arabic)



Dr. Sana Tibi is an Associate professor at the department of Special Education at the United Arab Emirates University, with a doctorate in Communication Sciences and Disorders from the University of Florida, USA. She is a consultant to the World Bank and UNESCO on Arabic reading assessment, dyslexia and other learning difficulties. She has given several presentations in international and regional conferences and workshops on issues pertaining to children's literacy. Dr. Tibi has published several articles in international and regional journals, served as a reviewer for some international scientific journals and panels and written two books on reading difficulties. She is also interested in issues related to children's speech and language disorders, language acquisition, and literacy development.

Abstract

This report will summarize different practices for teaching people with dyslexia across different Arabic-speaking countries. Eight of the nineteen Arabic-speaking countries responded to the 'Good practice' questionnaire which Dyslexia International diffused on its web site. The presentation will cover common issues raised by respondents such as language constraints and challenges that are considered as barriers to good practice in dealing with dyslexia. The report will highlight the issues that need immediate attention in the hope of providing some form of intervention. Examples of these issues are: lack of standardised assessment tools in Arabic, as well as materials for intervention and methodologies that help the Arabic-speaking individual with dyslexia.

Wimmer (Psychology)



Professor Heinz Josef Wimmer was educated at the University of Salzburg, Austria and the University of Minnesota, USA. He heads the Developmental Psychology Working Group at the Department of Psychology and Center of Neurocognitive Research, Salzburg. He has investigated the manifestation of dyslexia in different orthographies and underlying visual and verbal impairments. Recently Professor Wimmer's group has investigated functional and structural brain abnormalities related to dyslexia.

Abstract

My talk will provide an overview of our neurocognitive research and will be set in a cultural context, that is a rather regular German orthography and a synthetic phonics teaching approach. Topics will be: a) manifestation of the disorder (eye movement data); b) associated (and non-associated) perceptual and cognitive impairments; and c) functional neuro-anatomical brain abnormalities. The differences to largely English-based dyslexia research will be highlighted.