

World Dyslexia Forum III – Arab Region



Latest research into how the brain reads: Dyslexia and reading acquisition in Arabic

قريبا سيتم نشر البرنامج النهائي على هذا الموقع

PROGRAMME

Three principal topics were to be covered.

DAY 1 – How the brain learns to read – Latest research and scientific perspectives

Introduction to Arabic orthography (writing) and the cognitive processes of reading Arabic

Neuroimaging studies of early language development, an update on recent findings on reading and reading disability

Neurolinguistic processing of the two varieties of Arabic diglossia: clinical and educational implications*

(* a sociolinguistic situation where two language varieties coexist for different language functions. One of the varieties is acquired naturally and the other is learned formally and considered the standard with a higher status.)

Testing the double-deficit hypothesis in Arabic*

(*The Double-Deficit Hypothesis proposes that phonological awareness and naming speed predict reading ability in young children, and that children with deficits in both are most severely affected.)

Phonological skills in developmental dyslexia as opposed to visual attention span and visual stress

The importance of the phonological deficit in children with dyslexia as compared to visual stress and attention span

Understanding dyslexia through computational models of reading: from theory to practice

Advocating a novel, multi-factorial approach; how reading performance can be simulated on the basis of underlying subcomponents of the reading network; common single-deficit theories do not account for observed heterogeneity in reading performance

Anatomical, physiological and genetic issues in developmental dyslexia

The role of vision in dyslexia, including visual stress; brief presentation of the genetics of dyslexia; other factors such as nutrition and the autoimmune system

DAY 2 – Literacy acquisition in Arabic; sociological issues and early identification in all languages

MORNING

There were two themes, the first dealing with Arabic specifically and the second dealing with socio-economic issues and the importance of early intervention in all languages.

Can Arabic reduce the impact of dyslexia?

Multiple environmental and cultural factors such as writing systems contribute to dyslexia. The syllabic writing system of Modern Standard Arabic, the allographic* nature of its orthography, with its highly regular mappings, should reduce the impact of dyslexia in MSA speakers.

(* Allographs are alternative forms of a letter, e.g. capital, lower case, various fonts ...)

Reading and pre-reading instructions in the context of Arabic for children at-risk and early elementary graders

Specific characteristics of Arabic, varying based on the children's age that effect the relationships between pre-reading skills and reading skills. Contrasting the predictive power of phonological awareness to most of the reading measures at lower grades versus upper grades with the predictive power of rapid automatized naming. Power of early intervention; lack of activities to support meta-cognitive and oral language skills in Arabic literacy programs in for both normally development children and children with reading difficulties

Inclusive education for children with dyslexia: perspective from an Arabic-speaking country

Services available to dyslexic students; challenges of a trilingual culture; prevalent attitudes to dyslexic students

Reading acquisition in Arabic: the challenges

An Inclusive Education Model

In its efforts to transform its regular public schools into inclusive schools, one MoE launched a pilot in 6 public schools (4 elementary, 1 KG, & 1 Early Intervention Center) with a purpose of developing a scalable model of inclusion countrywide. The expected outcome from the pilot is for the special needs students to learn and grow to the best of their abilities with their "typical" peers in the least restrictive environment in regular public schools.

Multifactorial models of dyslexia; implications for early intervention, identification and intervention

Causal basis of dyslexia in the context of multifactorial models, including various orthographies

Early identification and intervention to prevent reading problems

Dropping out of school, substance abuse, homelessness , anti-social behaviour and mental health problems are a consequence of failure to identify and treat learning disabilities; a successful class-room based programme to develop reading skills in Vancouver

Interactions and discussion groups - 'Sharing expertise'

DAY 3 – What Massive Open Online Courses can deliver; other uses of technologies in literacy and numeracy acquisition; previewing the next World Dyslexia Forums

Educational technologies (I)

What massive open online courses (MOOCs) can deliver as teachers' professional development for special needs

Appraisal of MOOCs: findings and opportunities. Examples of technologies used in support of learners with special needs with particular reference to dyslexia and dyscalculia; 'educational neuroscience' integrating neuroscience, cognitive psychology and education; embedding current educational practice in technology-based adaptive learning exercises

Educational technologies (II)

Presenting teacher-training materials online for review, and open courseware

The current Coursera MOOC, *Supporting children with difficulties in reading and writing*: including identification, co-occurring issues, bilingualism, practical strategies and choosing technology aids; 'e-Read' (European research project)