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This project is funded by the European Union.



**UNDERSTAND
AND TEACH**
HELPING STUDENTS WITH
LEARNING DISABILITIES - DYSLLEXIA

“UNDERSTAND AND TEACH”

HELPING STUDENTS WITH LEARNING DISABILITIES – DYSLLEXIA

PROJECT NO 2016-1-BG01-KA202-023687

Intellectual output 1

EUPLAT COMPEDIUM OF KNOWLEDGE

EUPALT is a LLL (Lifelong Learning) project funded by the European Union. The main project contents is the development of a "European Passport" for the Education of Therapists/Teachers Working with people with Dyslexia.

The main aim of the project was by linking the existing EDA-frame to EQF-related learning outcomes and by transferring a curriculum assessment tool into the field of dyslexia, the quality, transparency and comparability of the training programs for persons with dyslexia are increased. The aim was reached by learning outcome oriented curriculum transfer based on an already existing curriculum frame of the EDA and the possibility of a matching process between this learning outcome oriented framework (with focus on EQF) and individual or institutional portfolios. EUPALT supports therefore the recognition of competences and qualifications of trainers who traditionally come from different fields including informal learning (APL) as there is still no common frame or recognized curriculum in most EU countries.

EUPALT translates the Curriculum of the European Dyslexia Association into results (knowledge, skills and competencies) and makes the first steps toward an European Curriculum for the training of professionals working with persons with dyslexia. EUPALT supports the process of recognizing competencies acquired through informal learning (APL) with its internet-based evaluation tool.

TOOLS AND OUTCOMES OF THE EUPLAT

The main tools developed within the project which will be integrated in the Understand and Teach learning platform are the following:

- A. Online Assessment Instrument
- B. Online Resource Pool

A. Online Assessment Instrument

The online Assessment Instrument which was the main result of the EUPALT Platform will be incorporated in the UNDERSTAND AND TACH Platform

The objectives of the EUPALT was to transfer EDA-frame contents into learning outcomes (knowledge, skills and competences) into a European curriculum for dyslexia trainers (also regarding NQFs and EQF) and to adapt in terms of transfer existing tools of accreditation (especially regarding informal training).

A:1 Functionality of the Functionality Online Assessment Instrument

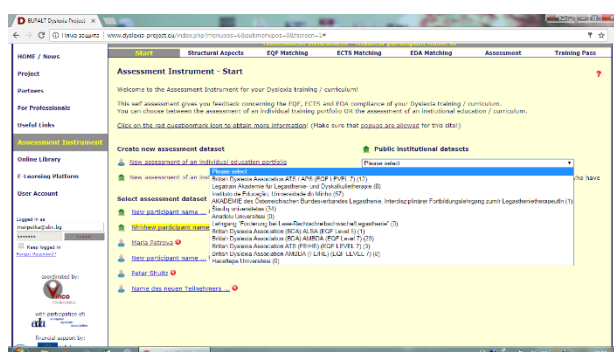
One of the main functionalities of the EUPLAT platform was the development of a "European Passport" for the Education of Therapists/Teachers Working with People with Dyslexia.

EUPALT makes it easier for potential students to choose educational or training programmes due to the information provided by institutions and graduates. EUPALT initiates the mainstream integration of the EDA-Curriculum into national contexts. EUPALT additionally pioneers the development of a recognised, European-wide accreditation institution in the field of dyslexia.

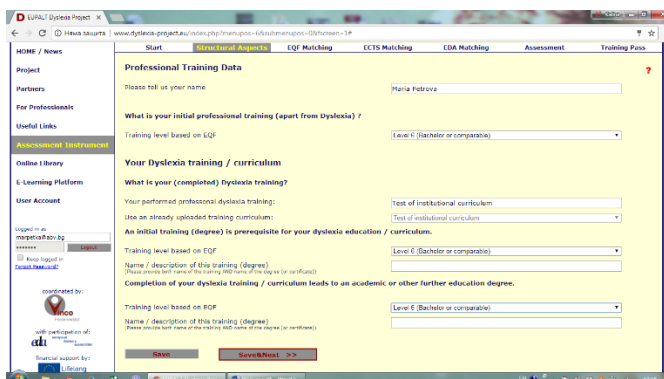
The "Online Assessment Instrument Map" is a working tool, which allows, in a simple way, self assessment of an individual training portfolio compared to a reference curriculum and initiate pilot certification processes based on individual or institutional portfolios of the trainers.

Evaluation tool steps:

1. An input screen where the assessed person or organisation can enter initial information the assessed curriculum. The users can choose between the assessment of an individual training portfolio OR the assessment of an institutional education / curriculum. The self-assessment gives feedback to the participant or training institution, to which extent (based on own assessment) the institutional curriculum or individual portfolio matches with the curricular frame of the EDA, taking into account current EU strategies in the field of professional training. Your online assessment provides with feedback about your training related to current relevant EU strategies (EQF, learning outcome, ECTS, EDA frame).

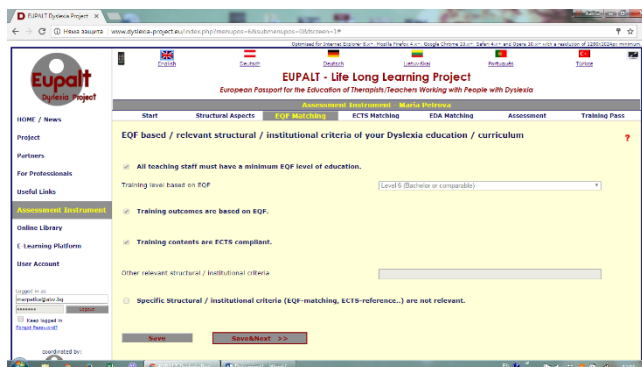


2. A personal data input screen where the assessed individual/organisation inputs info about training courses and obtained degrees.



3. Assessment screen where the EQF matching is done. All trainers/teaching staff within a training setting must have a minimum EQF level of education. Some institutions might define their own specific training level for their trainers. If there is information about a required necessary level of education of the trainers providing professional training, the users must tick the check box and identify the correspondent EQF-level. Not referencing their trainers/teacher towards a minimum level does not represent negative impact on the whole Assessment process.

Training outcomes are based on EQF. This section assesses whether training outcomes of the user portfolio or curriculum formally match EQF-levels (e.g. within a Masters course). However, especially for Austria and Germany, an „official“ formal matching might not be available.



4. Assessment screen where the ECTS matching is done Institutionally defined content criteria of the professional dyslexia training. Training contents are based on EQF related K-S-C approach:
 - Knowledge,
 - Skills
 - Competences

The EQF approach includes the concept of „Learning outcomes“. Professional training therefore can be divided into aspects of:

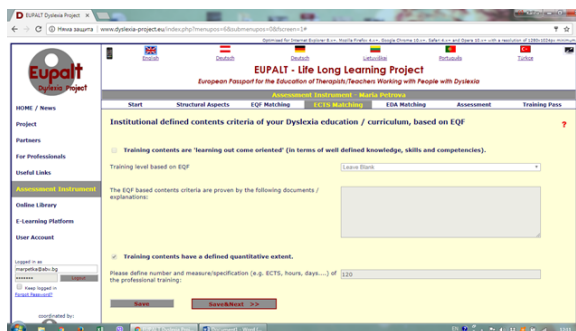
- a. Knowledge (which knowledge is taught?)
- b. Skills (which skills are transferred?)
- c. Wider personal Competences (which wider personal competences like communication, attitude..) are focused on.

Here the assessed person/organisation provides description whether their training or module descriptions are (formally) reflecting these aspects.

Not referencing the contents towards the ECTS frame does not represent any negative on the WHOLE Assessment process.

Training contents have a defined quantitative extent The ECTS (European Credit Transfer System) represents an EU wide comparable system of workload description of academic training (http://ec.europa.eu/education/lifelonglearning-policy/ects_en.htm).

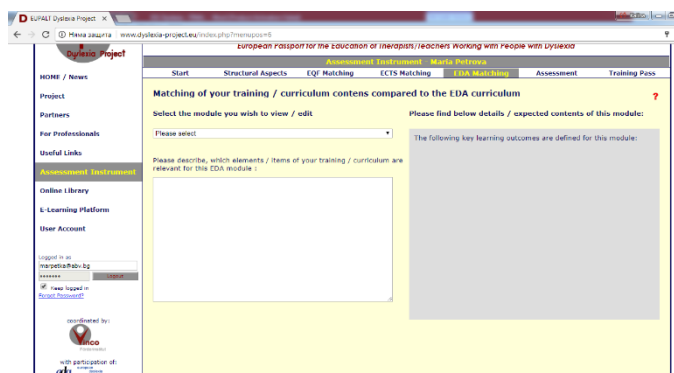
The assessed person should report quantitative indicators related to their curriculum (number + measure: e.g. xxxECTS, xxx hours, xxx days.....).



5. Assessment screen where the EDA matching is done. This section enables a specific content oriented assessment. It follows the 7 modules structure of the EDA. Detailed information about EDA can be find in the (i) screen. The section focuses primarily on the matching of contents. The assessed person/organisation should describe (e.g. based on their own module descriptions) which own training contents the refer to the EDA frame.

Within a drop down menu you the assessed person/organisation can choose one of 7 relevant modules. On the right side of the screen page detailed information related to the EDA frame (which contents are associated to the selected module).

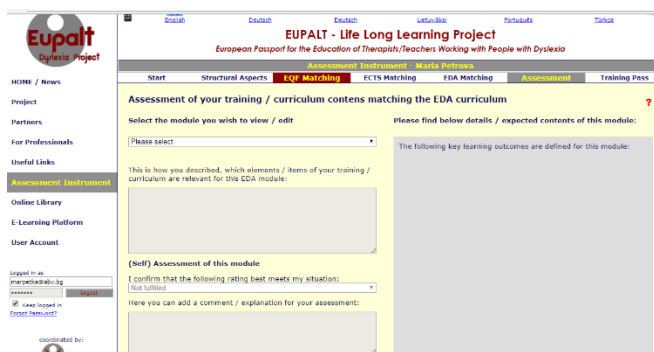
And the assessed person/organisation should describe which elements/items of their training curriculum are relevant for this EDA module. The assessed person/organisation should describe performed training units (e.g. in terms of a list of performed courses/modules within his/its portfolio) which correspond to the contents of the EDA frame. This list of units will – within a next step – be automatically used within the „assessment“.



6. Assessment of Matching. After having described the contents of the portfolio/curriculum related to the EDA frame, in this section assessed person/organisation can assess, whether these contents (from their point of view) match to this module of the EDA frame:

- Fully
- Partly or
- Not at all

This how the described which elements/items of their training are relevant for this EDA module. The system automatically copies their previous input and allows an individual self assessment to which extent they assess, that their reported contents match to the EDA frame. To justify or strengthen of the assessment they are able to provide additional explanation, why they think, that your performed training or curriculum is matching to this or that extent.



7. Last screen: Receiving of training passport

What does this „Passport” mean?

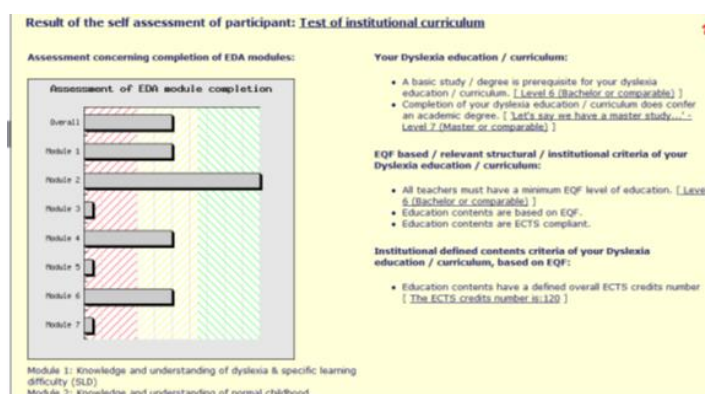
Based on the previous example of a fictional participant

A) The (fictionally) performed professional training contents match in 5 of 8 modules with the EDA frame (5 means at least finished secondary education)/

B) All teachers/trainers of the training providing institution need to have at least a bachelor's degree.

C) The professional training leads to an academic degree (EQF level 7)

D) The training represents 120 ECTS



A:2 Modules of the assessment tool and the learning outcomes

Institutions and its graduates measure the progress of their respective educational activities in accordance with criteria that have been developed by the European Dyslexia Association. By integrating the aforementioned outcome-evaluation tool within this conceptual system, improvements in quality, transparency and comparison of educational programmes within the field of dyslexia are targeted.

To built an accurate evaluation tool EUPALT translates the Curriculum of the European Dyslexia Association into results (knowledge, skills and competencies):

The competences constructed by the specialists have identified five essential categories (Modules):

- 1 Module A: KNOWLEDGE AND UNDERSTANDING OF DYSLLEXIA/SPECIFIC LEARNING DIFFICULTY (SLD)
- 2 Module B: KNOWLEDGE AND OF TYPICAL CHILD DEVELOPMENT
- 3 Module C: GENERAL BACKGROUND KNOWLEDGE
- 4 Module D: ASSESSMENT AND EVALUATION



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5 Module E: INTERVENTION- AND MENTORING PROFILE

6 Module F: PERSONAL SKILL DEVELOPMENT OF THE TEACHER

When assessing the educational content presented in the EDA programme and the preparation results formulated by the EUPALT project group, specialists are highly bound to emphasise the competences which are necessary for direct everyday practical work with pupils having specific learning disorders, i.e. to recognise disorders, to understand their causes and to adjust the educational content. Pedagogues consider the competences which would allow for the implementation of the teacher-researcher role in carrying out independent and purposeful observations through being interested in, and interpreting research, whilst tests are seen as less important.

A:3 General description of the modules of the assessment tool and the learning outcomes.

Module A: KNOWLEDGE AND UNDERSTANDING OF DYSLEXIA/SPECIFIC LEARNING DIFFICULTY (SLD)

Key learning outcomes

1. Relevant History
2. Definitions and Descriptions
3. Characteristics and Manifestations
4. Prevalence and Incidence
5. Etiology
6. Allied Conditions

1. Relevant History		
Knowledge The nature of dyslexia from historical perspective.	Skills To be able to differ between older and up to date theories.	Wider Personal Competences To convey it to parents in a sensitive and non threatening manner.

2. Definitions and Descriptions		
Knowledge Contemporary theories of the typical development of language, literacy and numeracy skills and how dyslexic learners may differ from those who are not experiencing difficulties in acquiring these skills.	Skills Assessment of how these differences occur and what they mean	Wider Personal Competences Critically appraise and reflect on a range of theoretical perspectives on dyslexia.



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3. Characteristics and Manifestations

Knowledge	Skills	Wider Personal Competences
Understanding of the range and depth of dyslexia and its impact socially, emotionally and developmentally through to adulthood.	Construct and evaluate a personalized ,structured, sequential, multi-sensory teaching programme and adjust the curriculum accordingly.	Ability to modify according to individual needs and evaluate the intervention on a regular basis.

4. Prevalence and Incidence

Knowledge	Skills	Wider Personal Competences
Understanding of socio-demographics of specific learning difficulties.	Understanding socio-demographic literature and studies.	Being aware of the impact of this demographic data in schools, further education, prisons, wider society

5. Etiology

Knowledge	Skills	Wider Personal Competences
Understand and critically appraise: Current research of etiology of specific learning difficulties/ dyslexia and its relevance for the understanding of the person with dyslexia (genetics, neurobiology etc.)	Demonstrate familiarity with the actual academic knowledge about etiology.	Show openness about how new academic knowledge in this field may be used in monitoring and evaluating programmes of support.

6. Allied Conditions

Knowledge	Skills	Wider Personal Competences
Demonstrate an understanding of the social, emotional and behavioural difficulties pupils with specific learning difficulties may encounter.	Methods and principles of staff development for an inclusive curriculum. Operate with the understanding of the legal and professional issues that affect dyslexic pupils. Operate with the understanding of the implications of social, emotional, behavioural and community issues for dyslexic learners and their families. It is important that these issues are considered across the full age range so that current difficulties can be understood in relation	Communicate effectively with teachers, parents and other professionals by verbal and written reports on the needs and achievements of learners with dyslexia. Model teaching and learning approaches and coach staff in their own and other schools. Competently prepare and disseminate technical reports to specialist teachers and other professionals and non-professionals concerned with



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	either to their possible derivation or future implications.	the support of students including the provision of advice and recommendations to meet specific purposes.
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Module B: KNOWLEDGE AND UNDERSTANDING OF TYPICAL CHILD DEVELOPMENT

Key learning outcomes

1. The Brain
2. Sensory Development and Sensory Integration
3. Perceptual Development
4. Motor Development
5. Spoken Language Acquisition
6. Written Language Acquisition
7. Memory
8. Self-Esteem
9. Motivation
10. Attention and Concentration
11. Bi/multi-lingualism

1. Brain		
Knowledge Knowledge about general structure of the brain, information transfer Knowledge about the role of brain regions related to reading and writing abilities (e.g. Left posterior brain region) Knowledge about (neuronal) information processes during reading and writing	Skills Operate with the knowledge of scientific brain research and integrate findings of brain research into learning situations Adapt training situation with persons with dyslexia towards findings of brain research	Wider Personal Competences Communicate and explain underlying brain processes to persons with dyslexia and/or to relevant stakeholders (parents, teachers....)

2. Sensory Development and Sensory Integration		
Knowledge About diverse modalities of sensory development (visual, auditory, kinesthetic...) About cross-modal sensory	Skills Being able to describe resources and possible deficits related to sensory processes or sensorial integration Apply cross modal stimuli during training processes	Wider personal Competences Explain and communicate the importance of sensory integration to persons with dyslexia Communicate in an understandable respectful way,



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Integration e.g. related to perceptual processes in the temporal cortex	<p>Provide concrete exercises to stimulate cross-modal information processes</p> <p>Enable transfer processes between the training and daily live activities and/or natural learning environments (e.g. in school settings)</p>	taking into account resources and abilities of the learners or their stakeholders (e.g. parents, teachers)
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3. Perceptual Development

Knowledge	Skills	Wider personal Competences
<p>About the development of diverse perceptual areas</p> <p>Specific knowledge about e.g. restricted auditory perception, impaired phonological perception, phonological working memory, Rapid Automatized Naming (RAN) and deficits in the categorical perception of phonemes</p>	<p>Being able to assess resources and deficits related to diverse perceptual areas.</p> <p>Being able to use basic tools to assess perceptual abilities</p> <p>Transfer knowledge about the perceptual system into exercises and support</p>	<p>Explain and communicate the importance of perceptual processes to persons with dyslexia</p>

4. Motor Development

Knowledge	Skills	Wider personal Competences
<p>The development of fine and gross motor skills.</p> <p>Specific knowledge about e.g. restricted poor motor coordination.</p> <p>Knowledge about lateralization (e.g. low level of dexterity).</p> <p>Specific knowledge about motor-visual and hand-eye coordination.</p> <p>Specific knowledge about spatial abilities.</p>	<p>Ability to assess resources and deficits related to fine and gross motor development.</p> <p>Ability to use basic tools to assess motor difficulties.</p> <p>Transfer knowledge about the perceptual system into exercises and support.</p>	<p>Motivate learners towards motor stimulation</p> <p>Explain to learners the importance of motor behavior related to dyslexia and SpLDs.</p>



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5. Spoken Language Acquisition		
Knowledge	Skills	Wider personal Competences
About the development of language and the language acquisition process	Able to assess the developmental stage of language acquisition	Increase awareness of stakeholders (parents, teachers..) related to possible language acquisition problems
About stages and pre-stages of expressive and receptive language	Able to use basic tools to describe language acquisition processes (including non-verbal behavior).	Increase awareness and compliance of stakeholders related to possible other necessary support processes (e.g. speech therapy)
About non-verbal communication	Transfer knowledge related to language acquisition into exercises and/or stimulation.	Be aware of possible socio-logical factors on language acquisition

6. Written Language Acquisition		
Knowledge	Skills	Wider personal Competences
About theories of development of written language acquisition	Able to assess the developmental stage of written language (e.g. spelling, orthography)	Motivate learners to write to avoid future avoidance behaviour
About stages and pre-stages of written language	Able to use basic tools to assess the stage of written language acquisition	Increase the awareness of stakeholders towards the specificity of dyslexia
About the importance of sequencing and the impact of fine and gross motor skills on handwriting	Transfer knowledge related to written language into exercises and/or stimulation	

7. Memory		
Knowledge	Skills	Wider personal Competences
About functioning and types of memory in relation to dyslexia	To assess the functioning of various types of memory	To show an empathic and patient attitude towards various challenges which face learners with dyslexia
About specific challenges and deficits which can be observed in learners with dyslexia	To apply memory-targeting exercises within the learning process	

8. Self-Esteem



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Knowledge	Skills	Wider Personal Competences
<p>About the correlation between psychological processes (e.g. self-esteem, distress ...) and processes of writing and reading.</p> <p>About techniques towards stress-coping.</p> <p>About possible co-occurrences of dyslexia (e.g. ADD/ADHD).</p> <p>About the risk of social exclusion processes</p>	<p>To create situations for the learners in which they feel self-efficient</p> <p>To perform exercises of stress reduction with the learner</p> <p>To provide advice related to social inclusion</p> <p>To highlight strengths and resources of the learner</p>	<p>To communicate in a respectful way with the learners</p> <p>To provide stress-free learning environments</p>

9. Motivation		
Knowledge	Skills	Wider personal Competences
<p>About the importance of motivation related to writing/reading processes</p> <p>About basic theories of motivation and conditioned helplessness</p>	<p>To be able to create a motivating learning environment for the learner</p> <p>To be able to perform positive reinforcement and success-oriented learning strategies</p>	<p>To be able to highlight resources and strengths</p> <p>To be aware of ones own resources during the work with learners with dyslexia</p>

10. Attention and Concentration		
Knowledge	Skills	Wider Personal Competences
<p>About theories, function and mechanism of keeping attention and/or concentration related to writing and reading skills</p> <p>About cooccurrence with ADD/ADHD or other developmental problems</p> <p>About support programs towards increasing attention</p>	<p>To assess attention and concentration related to writing and reading</p> <p>To be able to create learning environments favorable towards attention and concentration</p> <p>To perform exercises to expand concentration and/attention</p>	<p>To reflect own perceptions and concepts and eventually consider also other medically oriented interventions, if concentration/attention also meet the criteria of ADD/HD</p> <p>To reflect on family centred intervention to decrease distress on the learner</p>

11. Bi-/multi-lingualism		
Knowledge	Skills	Wider personal Competences
<p>About the impact of bi/multi-lingualism and/or the targeted language on dyslexia</p>	<p>To be able to analyze the specific challenges related to reading/writing of a target language</p>	<p>To be able to reflect about one's own language and the differences of the structures of other languages.</p>



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About basic grammatical and orthographic rules of the target language including successful learning strategies	To be able to give understandable and easy explanation of basic spelling/orthographic/grammar rules of a target language	To be patient To cooperate with others (e.g. within a “team around the child”)
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Module C: GENERAL BACKGROUND KNOWLEDGE

Key learning outcomes

1. Causes of Specific Learning Difficulties
2. Understanding Psychological (and other relevant disciplines') Reports
3. The (different) relationships Between Spoken and Written Language (in the mother tongue and targeted languages)
4. Models of Reading
5. Written Style
6. Learning Style and Teaching Style
7. Information Technology
8. Curriculum Demands
9. Coping with Examinations
10. Commercial Material and Teaching Programmes for Dyslexia/SLD
11. Other Subject Learning

1. Causes of Specific Learning Difficulties		
Knowledge Knowledge about multiple factors contributing to learning difficulties (biological, environmental, social) and different causes of learning difficulties: - overall low cognitive ability (and/or specific cognitive weaknesses) i.e. a Global Learning Difficulty - physical disabilities (including sensory deficits), - specific learning difficulties, - primary emotional disorders, - socio-economic factors.	Skills - identification of universal and specific characteristics of learners having learning difficulties; - identifying and evaluating evidence related with different causes of learning difficulties.	Wider Personal Competences Recognition of the importance of evidence based practice to guide a professional's work.

2. Understanding Psychological (and other relevant disciplines) Reports		
Knowledge	Skills	Wider Personal Competences



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<p>Knowledge about different disciplines related to learning difficulties (psychology, neurology, pedagogy, etc.) and interdisciplinary approach.</p> <p>Understanding of: purpose for assessment, terminology, interpretation and practical application given in reports.</p>	<ul style="list-style-type: none"> - familiarity with terminology from different disciplines; - - ability to analyse psychological and other discipline reports and apply new information in practical work 	<p>Knowing how to conduct oneself professionally in a specific situation and handle confidentially.</p>
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3. The (different) relationships Between Spoken and Written Language (in the mother tongue and targeted languages)

<p>Knowledge</p> <p>Knowledge about :</p> <ul style="list-style-type: none"> - normal developmental processes in spoken and written language, - structure of spoken language, - structure of written language. <p>Understanding relations between spoken language development and acquisition of writing in different languages.</p>	<p>Skills</p> <p>Ability to develop individual learning plans or teaching strategies based on the understanding of relations between spoken and written language in the mother and/or the targeted language..</p>	<p>Wider Personal Competences</p> <p>Self-confidence, trust in own abilities, self-respect.</p> <p>Being able to explain basic academic knowledge in linguistics (i.e. phonetics and phonology) to the person with dyslexia and his/her parents.</p>
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4. Models of Reading

<p>Knowledge</p> <p>Knowledge about acquisition of reading skills.</p> <p>Understanding of reading models:</p> <ul style="list-style-type: none"> - Bottom-up Model, - Top-down Model, - Interactive Model. 	<p>Skills</p> <p>Assessment of reading process according to these theories</p> <p>Constructing teaching process on understanding of complexity of reading as a process (developing different kinds of abilities - from written language prerequisites over syllable/onset-rime/phoneme/ word recognition to text comprehension and orthography) .</p>	<p>Wider Personal Competences</p> <p>Taking responsibility for facilitating the learning and developing autonomy and self-determination in learners.</p>
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5. Written Style

Knowledge	Skills	Wider Personal Competences
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<p>Knowledge about structure and grammar of language, strategies of:</p> <ul style="list-style-type: none"> - reading abilities development - teaching spelling - teaching handwriting - teaching and learning written texts 	<ul style="list-style-type: none"> - ability to evaluate of writing abilities in the fields of handwriting, spelling and writing text, - choose appropriate strategies to develop different aspects of writing abilities, - arranging teaching/learning process under consideration of causes writing difficulties and appropriate teaching strategies. 	<p>Belief that the learning capacity and potential of each learner has to be discovered and stimulated.</p>
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6. Learning Style and Teaching Style		
Knowledge	Skills	Wider Personal Competences
<p>Knowledge about learning styles and strategies: Learning styles (visual, verbal, active, etc.) Learning strategies : domain specific (cognitive); metacognitive (planning, monitoring and evaluation of learning process) Teaching styles assertive, suggestive, collaborative, facilitative, etc.</p>	<ul style="list-style-type: none"> - personal meta-cognitive, learning to learn skills, - ability to identify children's preferred learning styles, - evaluate effectiveness of learning strategies and preferred teaching style. 	<p>Recognize learning as a process: the goal for learners is the development of 'learning to learn' skills, not just content/subject knowledge. Ability to integrate learning strategies instruction in everyday teaching practice with respect to pupils learning styles.</p>

7. Information Technology		
Knowledge	Skills	Wider Personal Competences
<p>Knowledge about role and possibilities of using ICT for learning improvement of pupils with dyslexia:</p> <ul style="list-style-type: none"> - computerised programmes for screening dyslexia or evaluation of reading and writing (handwriting/ keyboarding) skills; - difference of keyboarding and handwriting; - computer-based, software programmes for development of children, cognitive, 	<ul style="list-style-type: none"> - to understand ways and cases in which ICT can be used effectively in a professional way; - to use ICT for screening dyslexia/ assessment of reading and writing skills; - to use software, computer-based programmes and audio books for supporting pupils with dyslexia. 	<p>Recognition of the importance of dyslexia-friendly computer-based learning environment.</p>



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academic skills and personality; - audio books and their influence on learning motivation		
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8. Curriculum Demands		
Knowledge	Skills	Wider Personal Competences
Knowledge of: Laws and practices in the field of adapting the curriculum according to child's needs Adapted learning material and textbooks Assessment of learning progress	To adapt learning material according to children's needs; To select appropriate learning material and textbooks; To choose most effective teaching methods according to children's needs and learning subject; To evaluate learning progress considering individual learning goals	Recognition and ability to use individual needs and learning goals in the process of planning teaching process

9. Coping with Examinations		
Knowledge	Skills	Wider Personal Competences
Provision of laws and practices for students with dyslexia in examinations.	To adapt special arrangements to the students with dyslexia.	Adaptations of learning material and assessment of learning progress according to individual learning needs, i.e.: extra time, reader Appropriate access arrangements

10. Commercial Materials and Teaching Programmes for Dyslexia/SpLD		
Knowledge	Skills	Wider Personal Competences
Knowledge about role and possibilities of using commercial materials and teaching programmes for students with dyslexia/ specific learning difficulties.	- to use and apply various commercial material and teaching programmes; - to evaluate efficiency of learning materials', programme application of students' particular cases.	Recognition of need for changes. Attitude that change and development is a constant in education and teachers need to search for the modern materials and teaching programmes.

11. Other Subject Learning		
Knowledge	Skills	Wider Personal Competences



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Knowledge about the nature of difficulties in other subjects (second language, mathematics, music, art, technical graphics/ mechanical drawing, physical education, social sciences, practical vocational subjects) learning.	- To raise awareness of cross curricula issues	Recognition of value of collaborative work. Informing and effectively working together with other teachers. Learning with and from each other and developing professionally.
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Module D: ASSESSMENT AND EVALUATION

Key learning outcomes

1. Cognitive Testing
2. Attainment Testing
3. Informal Assessment
4. Tests used in Schools
5. Early Recognition of Children At Risk of Dyslexia/SLD
6. Tests for Dyslexia/SLD
7. Referral
8. Observation Techniques

1. Cognitive Testing		
Knowledge	Skills	Wider Personal Competences
Knowledge of assessment of cognitive functions, which include procedures for administration, scoring criteria and interpretation of results.	Ability to be aware of available tests for other professionals; Ability to use the results to identify and diagnose dyslexia/SpLD Appropriate knowledge/use of tests.	Demonstrate accuracy and responsibility in cognitive testing for dyslexia.

2. Attainment Testing		
Knowledge	Skills	Wider Personal Competences
Knowledge of the theories and practices related to attainment group and individual testing for literacy and mathematical abilities	In relation to group and individual testing: - Ability to be aware of and use appropriate tests - Ability to construct, select, and administer tests - Ability to interpret and report results of testing	Demonstrate accuracy and responsibility in providing a static measure of the student's capacity



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3. Informal Assessment		
Knowledge Knowledge of the theories and practices related to informal testing for dyslexia	Skills <ul style="list-style-type: none"> - In relation to informal testing: - Ability to be aware of types of tests (e.g. criterion-referenced, miscue analysis, error analysis) - Ability to construct and administer informal assessments - Ability to interpret results of observation and informal assessment. 	Wider Personal Competences Demonstrate accuracy and responsibility in using informal assessment of the student's capacity
4. Tests used in Schools		
Knowledge Knowledge of the theories and practices of national and/or local tests related to dyslexia that are used in schools	Skills <ul style="list-style-type: none"> - Ability to gather national and/or local types of tests being used in schools - Ability to choose the appropriate tests to be used in a specific assessment situation - Ability to administrate tests - Ability to interpret and report results of testing 	Wider Personal Competences Demonstrate autonomy and responsibility in recognizing, choice, and use of national and/or local tests related to dyslexia within the school context
5. Early Recognition of Children at Risk of Dyslexia/SpLD		
Knowledge Knowledge of the theories and practices related to early recognition of pupils at risk for developing dyslexia	Skills <ul style="list-style-type: none"> - Ability to be aware of the purpose and use of assessment strategies - Ability to be aware of available tests and checklists - Ability to interpret and report tests' and checklists' results 	Wider Personal Competences Demonstrate autonomy and responsibility in recognizing environmental and personal's dyslexia/SpLD early risk factors, and their characteristics
6. Tests for Dyslexia/SLD		
Knowledge Knowledge of theories and practices related to specific and evidence-based tests for dyslexia/SpLD	Skills <ul style="list-style-type: none"> - Ability to be aware of the purpose and use of assessment strategies - 	Wider Personal Competences Demonstrate autonomy and responsibility in recognizing, choice and appropriate use of tests related to dyslexia/SpLD



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	<ul style="list-style-type: none"> - - Ability to be aware of available tests - Ability to interpret and report tests' results 	
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7. Referral		
Knowledge Knowledge of complementary disciplines, specialists and procedures to complete holistic diagnoses	Skills <ul style="list-style-type: none"> - Ability to follow referral procedures - Ability to recognize and respect the role(s) of other disciplines in the referral process - Ability to collaborate with other professionals and interested parties, i.e. teachers, other professionals in the field of dyslexia and SpLD, (educational) psychologists, etc. - Ability to use assessment information in eligibility decisions 	Wider Personal Competences Demonstrate autonomy and responsibility within the referral procedures

8. Observation Techniques		
Knowledge Knowledge of national and/or local tests related to dyslexia that are used in schools as well as theories and practices related to observation techniques for dyslexia/SpLD	Skills <ul style="list-style-type: none"> - Ability to recognize the role of observation techniques in classrooms and other assessment settings - Ability to design and/or use formal and informal observation lists to gather assessment information - Ability to interpret and report data 	Wider Personal Competences Demonstrate autonomy and responsibility in observation techniques carefully planned and systematically used; as well as to present observation data sensitively and responsibly

Module E: INTERVENTION- AND MENTORING PROFILE

Key learning outcomes

1. Medical and Indirect Interventions
2. Direct and Academic Interventions
3. Special Knowledge about Multi-Sensory Techniques
4. Whole-Word Learning Techniques
5. Phonological Awareness, Grapheme - Phoneme Correspondence, Working Memory and Speed of Information Processing (Rapid Automatised Naming)



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6. Cumulative and Structured Language Teaching Techniques
7. Parental Involvement
8. The Needs of Adults with Dyslexia/SpLD
9. Awareness of the Role of Play and Games
10. Practical Knowledge of Strategies to Develop and/or Compensate for Difficulties in the stated areas

1. Medical and Indirect Interventions		
Knowledge	Skills	Wider Personal Competences
Knowledge about co – occurring difficulties (e.g. ADD/ADHD) and knowledge about brain, its functions especially about its transferring modalities.	Operate with the understanding of processes and areas of processing in order to know which compensations of deficits via other areas may be possible.	Explanation for parents why the intervention is done in one specific way and not in another, why a child can't pay attention consistently. Handling co-occurring diagnoses. Integration of these in the modules and individual education programme.

2. Direct and Academic Interventions		
Knowledge	Skills	Wider Personal Competences
Knowledge of interpretation and methods of tests. Interpretation of results. Knowledge about the different levels of the acquisition of speech.	Which programme is necessary under which diagnostic circumstances. Adapt programme individually to the child's situation;	Coordinate whether an individual training or exercises within a group are more appropriate.

3. Special Knowledge about Multi-Sensory Techniques		
Knowledge	Skills	Wider Personal Competences
Knowledge about the learning abilities of a brain. Knowledge about the compensation (certain deficits can be covered by other areas of the brain)	Know phonological programmes and be able to use these. Adaptation to age, stage of development and deficits of the child.	Adaptation to age, stage of development and deficits of the child.

4. Whole-Word Learning Techniques		
Knowledge	Skills	Wider Personal Competences



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Knowledge about the different levels of acquisition of writing abilities. Knowledge about the structure of schoolbooks.	Technique of the whole- word method and buildup of a visual word bank. Recognize whether schoolbooks teach according to the whole-word method or other methods such as phonics.	Buildup of an individual visual word bank according to the child's needs and abilities.
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5. Phonological Awareness, Grapheme - Phoneme Correspondence, Working Memory and Speed of Information Processing (Rapid Automatised Naming)

Knowledge	Skills	Wider Personal Competences
Knowledge about Phonological Awareness, Working Memory and Speed of Information Processing (Rapid Automated Naming) (which predictor efficiency can they perform and how are they linked to Dyslexia). Knowledge about sound constancy of the mother and/or targeted language.	Inspection of phonetic awareness. Formal and Informal Assessment of these predictors The handling of exercises activities for these three primary prerequisites for the acquisition of written language in alphabetical systems.	Exercise the child's phonologic awareness. Buildup of concepts for grapho-phonemic competences. How is the individual basic word pool built up via standardised programmes individually for each child in terms of sound constancy (depending on the phonemographic grade of correspondance in the mother and/or targeted language). Awareness that phoneme-grapheme-constancy is restricted to only a few languages in Europe.

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6. Cumulative and Structured Language Teaching Techniques

Knowledge	Skills	Wider Personal Competences
Whole-word method, sound consistent writing, orthographic manner of writing (cursive-print)	Transfer to the child's skills (whether the difficulties of the child are related to its learning method).	To adapt the training accordingly. Interaction with the teachers and parents.

7. Parental Involvement

Knowledge	Skills	Wider Personal Competences
Educational level of the parents. Genetic disposition. Family background.	Motivation and education of the parents. Ability to involve the parents.	Individual lay-out of programmes in view of the family background.



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Psychosocial situation of the family.	Find out how far parents can support their children and the willingness to do so.	
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8. The Needs of Adults with Dyslexia/SLD		
Knowledge	Skills	Wider Personal Competences
Knowledge about the importance of the proficiency in writing and speech for the every day life.	Offers within a protected framework.	Age-appropriate programmes. Technical resources (PC).

9. Awareness of the Role of Play and Games		
Knowledge	Skills	Wider Personal Competences
Knowledge about playing. Role of games. Specific games for speech. Playing behaviour.	Integration of games into the lesson.	Frequency and duration of a game. Introduction of games as an ice-breaker or as a reward

10. Practical Knowledge of Strategies to Develop and/or Compensate for Difficulties in the stated areas ¹		
Knowledge	Skills	Wider Personal Competences
Knowledge about - difficulties in specific areas - effect of exercises	Preparation of exercises. Adapt individually to the basic word bank.	Avoid under- or over challenging of a child with the individual adaption of the word bank Recognize individual motivation of a child.

Module F: PERSONAL SKILL DEVELOPMENT OF THE TEACHER

Key learning outcomes

1. Interpersonal and Communication Skills
 2. Counselling Skills
 3. Assertiveness Skills
 4. Time Management Skills
 5. Report Writing Skills
 6. Observational Skills
 7. Assessment Skills
 8. Intervention Skills
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1. Interpersonal and Communication Skills		
Knowledge	Skills	Wider Personal Competences
<p>Knowledge about multiple factors contributing to learning difficulties (biological, environmental, social) and different causes of learning difficulties:</p> <ul style="list-style-type: none"> - overall low cognitive ability (and/or specific cognitive weaknesses), - physical disabilities (including sensory deficits), - specific learning difficulties, - primary emotional disorders, - socio-economic factors - Knowledge of different communication styles. 	<p>Skills and abilities to be developed include:</p> <ul style="list-style-type: none"> - identification of universal and specific characteristics of learners having learning difficulties; - identifying and evaluating evidence related to different causes of learning difficulties. <p>Adapting the intervention's communication style to the needs of the client</p>	<p>Recognition of the importance of evidence based practice to guide a professional's work.</p> <p>Developing a personal spectrum of multiple different client-dependent communication forms</p>

2. Counselling Skills		
Knowledge	Skills	Wider Personal Competences
<p>Knowledge about multiple and different causes of learning difficulties:</p> <ul style="list-style-type: none"> - Education of existing behaviours, - Studies of curriculum, - Research on disorders and environmental factors. 	<p>Skills and abilities to be developed include:</p> <ul style="list-style-type: none"> - More research on learning difficulties; - Developing new methods for identifying different causes of learning difficulties. 	<p>Recognition of best practice for further professional study.</p>

3. Assertiveness Skills		
Knowledge	Skills	Wider Personal Competences
<p>Knowledge about new national and international methods for educating people with learning difficulties:</p> <ul style="list-style-type: none"> - Dealing with unexpected behaviours, - Parental issues and genetic factors, 	<p>Skills and abilities to be developed include:</p> <ul style="list-style-type: none"> - creating new educational methods, - benchmark with other national curriculums, - professional empathy with the learner 	<p>Recognition of the importance of assertiveness techniques and creation of new effective methods including the development of a professional based and controlled empathy</p>



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- specific learning difficulties,
- primary emotional disorders.

4. Time Management Skills		
Knowledge	Skills	Wider Personal Competences
<p>Knowledge about adequate time to deal with time in general and especially with people with specific learning disability,</p> <ul style="list-style-type: none"> - Accomplish a better teaching schedule - Methods to overcome physical disabilities (motor-coordination, ENT-based, SI-based, optometric-based), additional special needs, and specific learning difficulties 	<p>Skills and abilities to be developed include:</p> <ul style="list-style-type: none"> - identification of universal time management skills, techniques used in other countries 	<p>Recognition of the importance of identifying adequate time to overcome learning disabilities.</p>

5. Report Writing Skills		
Knowledge	Skills	Wider Personal Competences
<p>Knowledge about reporting the causes, studies and results of studies about learning disabilities,</p> <ul style="list-style-type: none"> - Identification of up to date situation and universal studies about physical disabilities and specific learning difficulties, primary emotional disorders, - socio-economic factors. <p>Knowledge about writing reliable reports of the professional's intervention about a person with dyslexia</p>	<p>Skills and abilities to be developed include:</p> <ul style="list-style-type: none"> - Survey about national and international studies, reasons of learning disabilities and identifying and evaluating evidence related to different causes of learning difficulties. <p>Writing reliable and evidence-based reports for parents, teachers, school authorities and health institutions</p>	<p>Recognition of the importance of reporting up to date studies and exploration of new ways</p> <p>Considering that a reliable professionally formulated report could be the base to provide further resources for the person with dyslexia</p>

6. Observational Skills		
Knowledge	Skills	Wider Personal Competences
<p>Knowledge about how to identify learning disabilities,</p> <ul style="list-style-type: none"> - - 	<p>Skills and abilities to be developed include:</p> <ul style="list-style-type: none"> - identification of new testing methods, observational issues 	<p>Recognition of the importance to identify a learning disability with correct techniques.</p>



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- - Main characteristics of a person with global or specific learning disabilities	- - identifying and revealing evidence related with different causes of learning difficulties.	
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7. Assessment Skills		
Knowledge	Skills	Wider Personal Competences
Knowledge about assessment techniques and comparison with other countries, - Survey on reliable assessment methods about evaluation of studies applied to people with physical disabilities, additional special needs, specific learning difficulties and primary emotional disorders.	Skills and abilities to be developed include: - identification of universal methods for assessment - identifying and evaluating evidence related to different causes of learning difficulties.	Recognition of the importance of using the best evaluation and assessment technique for education of people with learning disability.

8. Intervention skills		
Knowledge	Skills	Wider Personal Competences
Undertake a recognised course of study which involves a period of supervised practice. 20 hours of evaluated, specialist intervention, a minimum of 12 hours with the same pupil; carried out under permanent supervision by two course tutors or under observation and assessment by a course tutor. A final report including case history, complete diagnostic assessment, preliminary diagnosis, therapy schedule of the intervention, extended description of the therapeutic content of three intervention units minimum. Building of knowledge based on theory and practice.	- Presentation of a Portfolio containing assessment and lesson plans with a critical and reflective self evaluation .	Ability to plan, evaluate and critically reflect on one's own practice and if necessary change and adapt programme to suit needs of the learner.

B: Online Resource Pool

Purpose: This resource pool is intended for the deployment of training materials (resources) for professionals working with children affected by dyslexia.

The range of materials is suitable for various professional training situations (basic education and/or further education/or self-guided learning).

The categorization of the resources corresponds to the different professional groups addressed within the project. The users also might also find other interesting resources specified in other professional groups. Within each professional category there can be found the modules of the project, supporting methodological helping files and other useful materials.

Each user of the Resource Pool can download available material free of charge or even upload own material.

Library of Useful information on the following topics:

1. Knowledge and understanding of dyslexia & specific learning difficulty

Include:

Name of the article:	Cerebral lateralization in schizophrenia and dyslexia: neuromagnetic responses to auditory stimuli
Short content:	This study describes cerebral correlation (related to lateralisation) in patients with schizophrenia and persons with dyslexia
Author:	Heim S, Kissler J, Elbert T, Rockstroh
Language	English
Source:	http://kops.uni-konstanz.de/bitstream/handle/123456789/10840/Heim_et_al_SZ-DYS04.pdf?sequence=1&isAllowed=y

Name of the article:	Dyslexia and the Brain: What Does Current Research Tell Us?
Short content:	Defintion of dyslexia Underlying characteristics of dyslexia Help for teachers
Author:	Roxanne F. Hudson, Leslie High, and Stephanie Al Otaiba (2007)
Language	English
Source:	http://www.ldonline.org/article/14907

Name of the article:	Dyslexic Children have abnormal brain lactate; Response to reading related language tasks
Short content:	Study of Brain lactate metabolism in correlation with dyslexia



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Author:	Todd L. Richards; Stephen R. Dager; David Corina; Sandra Serafini et. al 1999
Language	English
Source:	http://www.ajnr.org/content/ajnr/20/8/1393.full.pdf

Name of the article:	The brain basis of the phonological deficit in dyslexia is independent of IQ
Short content:	Study about the correlation of findings by means of functional MRI and dyslexia
Author:	Tanaka, H.; Black, JM.; Hulme, C.; Stanley, LM.; Kesler, 2011
Language	English
Source:	https://www.sciencedaily.com/releases/2011/09/110928180414.htm

Name of the article:	Sensitivity to visual and auditory stimuli in children with developmental dyslexia
Short content:	The paper studies auditory the correlation between visual sequences of stimuli and the speed of their reactions.Children with dyslexia appeared slower than controls.
Author:	King, B.; Wood, C.; Faulkner, D., 2007
Language	English
Source:	http://www.academia.edu/425657/Sensitivity_to_Visual_and_Auditory_Stimuli_in_Children_with_Developmental_Dyslexia

Name of the article:	Categorical perception of speech sounds and dyslexia
Short content:	The paper examines the importance of speech perception in children with dyslexia
Author:	Serniclaes, W.; Sprenger-Charolles, L. , 2003
Language	English
Source:	http://cpl.revues.org/379

Name of the article:	Early motor development and later language and reading skills in children at risk of familial dyslexia
Short content:	Children with familial risk of dyslexia and slow motor development shown a smaller vocabulary with poorer inflectional skills than the other children.
Author:	Viholainen, H.; Ahonen, T.; Lyytinen, P.; Cantell, M.; Tolvanen, A.,2007
Language	English
Source:	http://onlinelibrary.wiley.com/doi/10.1017/S001216220600079X/pdf

Name of the article:	Motor impairment in dyslexia: the influence of attention disorders
Short content:	The study revealed was not in favor of a unequivocal causal link between reading disabilities and motor or ADHD.
Author:	
Language	English
Source:	http://www.resodys.org/IMG/pdf/article_chaix07.pdf



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Name of the article:	Fine motor coordination of students with dyslexia and attention deficit disorder with hyperactivity
Short content:	The study shows delays in fine motor behaviour in children with ADHD and dyslexia
Author:	Paolo Matiko Martins et al, 2011
Language	Portuguese
Source:	http://www.scielo.br/scielo.php?pid=S1516-18462011000500012&script=sci_abstract

Name of the article:	Social and emotional problems related to Dyslexia
Short content:	Paper of the International Dyslexia Association (IDA) 2004
Author:	Ryan, M
Language	English
Source:	https://dyslexiaida.org/

Name of the article:	The Effectiveness of the Intervention Program on Reading Fluency and Reading Motivation of Students with Dyslexia
Short content:	The study examines the impact of an intervention program with significant differences between intervention group and controls.
Author:	Mihandoost, Z.,2011
Language	English
Source:	http://www.ccsenet.org/journal/index.php/ass/article/view/9740/6998

Name of the article:	Kleine, aber feine Literatúrauswahl
Short content:	Kleine,aber feine Literatúrauswahl aus dem deutschsprachigen Raum
Author:	Michael Kalmar
Language	German
Source:	http://www.dyslexia-project.eu/rpool/resources/Eine%20kleine,%20aber%20feine%20Literaturauswahl.doc

Name of the article:	AKADEMİDİSLEKSİ İZMİR
Short content:	<p>Disleksi: Yazılan kelimeleri okumada ve anlamada güçlük olarak algılanabilir. Çocuk okul çağına geldiğinde okumada zorluk yaşamasıyla anlaşılabilir.</p> <ul style="list-style-type: none">- Okuma yavaştır ve akıcı değildir bazen hiç yoktur. Harf harf okur, özellikle bilmediği kelimeleri okurken duraklar, okuyamaz.- Kelimeleri kısaltarak okur.- Tahmin ederek okur.- Yüksek sesle okurken ritim ve tonlaması bozuktur, yanlış vurgulama yapar.- Okuduğu öykünün veya parçanın anlamını çıkaramaz.- Bir satırı takip edemez, karıştırır, satır başına geçerken zorlanır



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Author:	Akademidisleksi
Language	Turkish
Source:	http://www.akademidisleksi.com/

Name of the article:	YA ÇOCUĞUM OKUYAMAZSA
Short content:	Akademidisleksi izmir
Author:	
Language	Turkish
Source:	http://www.tavsiyedyorum.com/makale_3155.htm

2. GENERAL BACKGROUND KNOWLEDGE:

Name of the article:	Reading and dyslexia in different orthographies. (2010). Hove : Psychology Press
Short content:	The development of reading skills in different orthographies; developmental dyslexia in different orthographies; neuroimaging studies of reading in different orthographies.
Author:	Edited by Nicola Brunswick, Siné McDougall and Paul de Mornay Davis
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/Reading%20and%20dyslexia%20in%20different%20orthographies.pdf

Name of the article:	Comparison of Pen and Keyboard Transcription Modes in Children with and without Learning Disabilities.
Short content:	Fourth graders with learning disabilities in transcription (handwriting and spelling), LD-TD, and without LD-TD (non- LD), were compared on three writing tasks, which differed by level of language, when writing by pen and by keyboard. Students in both groups tended to show the same pattern of results for amount written as a larger sample of typically developing fourth graders who composed longer essays by pen. Results for that sample, which also included typically developing second and sixth graders, showed that effects of transcription mode vary with level of language and within level of language by grade level for letters and sentences. From second to fourth to sixth grade, children wrote longer essays with faster word production rate by pen than by keyboard. In addition, fourth and sixth graders wrote more complete sentences when writing by pen than by keyboard, and this relative advantage for sentence composing in text was not affected by spelling ability.
Author:	Beminger, V., W., Abbott, R. D., Augsburger, A., Garcia, N
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/+5.pdf



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Name of the article:	A comparison of keyboarded and handwritten compositions and the relationship with transcription speed. (2007).
Short content:	It is well established that handwriting fluency constrains writing quality by limiting resources for higher order processes such as planning and reviewing. According to the 'simple view of writing' then slow keyboarding speed should hinder the quality of keyboarded essay compositions in the same way that slow handwriting hinders handwritten essay compositions. Aim - to examine the relationship between handwriting fluency and keyboarding fluency throughout the primary school and studying the link between word-processed compositional quality and keyboarding fluency. There was a high correlation between handwriting and keyboarding speed and handwriting speed was consistently faster than keyboarding speed across all ages. Small minority of children in years 5 and 6 had faster keyboarding than handwriting speed. Results showed that children's compositional quality was superior in the handwritten scripts as opposed to the keyboarded scripts. Writing by keyboard does not necessarily lead
Author:	Connelly, V., Gee, D., Walsh, E.
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/+3.pdf

Name of the article:	SeeWord—a personal word processing environment for dyslexic computer users.
Short content:	SeeWord is a highly configurable word processing environment, which assists dyslexic users when producing and reading text. The software was developed using a user-centred development cycle where user feedback contributed to each revision. Evaluations showed that users were able to find individualised combinations of settings using the specialised software, which they used in preference to the black-on-white text that is usually displayed on computer monitors. Three separate prototypes of the software were developed and evaluated. The third prototype was used in an experimental study with 6 dyslexic school pupils. The research showed that 5 out of the 6 dyslexic users aged 14–16 years benefited from the use of specialised software when reading text from a computer screen. Participants were able to read standard texts from a screen significantly more accurately with the aid of SeeWord. All participants reported that they felt they could read text from the screen better using the softw
Author:	Gregor, P., Dickinson, A., Macaffer, A., Andreasen, P.
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/+1.pdf

Name of the article:	Computer-based Programs in Speech Therapy of Dyslalia and Dyslexia-Dysgraphia. (2010). Brain, Broad Research in Artificial Intelligence and Neuroscience, 1 (2), 52-63.
Short content:	Elaboration and use of computer programs in speech disorders therapy. The objective of this study -to evaluate the therapeutic effectiveness of computer-based programs for the Romanian language in speech therapy.



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	Along the study, we will present the experimental research through assessing the effectiveness of computer programs in the speech therapy for speech disorders: dyslalia, dyslexia and dysgraphia. Methodologically, the use of the computer in the therapeutic phases was carried out with the help of some computer-based programs that we elaborated and we experimented with during several years of therapeutic activity. The study hypotheses verified whether the results, obtained by the subjects within the experimental group, improved significantly after using the computer-based program, compared to the subjects within the control group, who did not use this program but got a classical therapy. The hypotheses were confirmed for the speech disorders included in this research; the conclus
Author:	Tobolcea, I., Danubianu, M.
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/+11.pdf

Name of the article:	The Effects of Audiobooks on the Psychosocial Adjustment of Pre-adolescents and Adolescents with Dyslexia.
Short content:	The objective of the present research study was to understand what benefits the use of audiobooks (both school-books and books of various genres, recorded on digital media) could bring to preadolescents and adolescents with developmental dyslexia. Two groups, each consisting of 20 adolescents, were compared. The experimental group used the audiobooks, while the control group continued to use normal books. After 5 months of experimental training, the experimental group showed a significant improvement in reading accuracy, with reduced unease and emotional-behavioural disorders, as well as an improvement in school performance and a greater motivation and involvement in school activities. Keyword: dyslexia; audiobooks; psychosocial adjustment; adolescents
Author:	Milani, A., Lorusso, M. L., Molteni, M.
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/+23.pdf

Name of the article:	Assistive Technology for Students with Learning Disabilities in Writing: Beliefs, Knowledge and Use
Short content:	The purpose of this study was to investigate special education teacher beliefs, knowledge and use of assistive technology for students with learning disabilities in writing. A ten question survey was administered to a random sample of special education teachers in Ohio. Participants viewed technology as beneficial, but use and knowledge of assistive technology was limited. Reasons revealed were demands for training and resource availability and student needs. Value placed on technology, current education, and years of teaching experience did not correlate with participants feeling adequately trained to use assistive technology or have an impact on level of assistive technology integration. Possible reasons included inadequate teacher training, lack of teachers seeing student need for assistive technology, and the rate of technology change.



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Author:	Bigelow, D. L.
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/+13.pdf

Name of the article:	Computer-based Training with Ortho-Phonological Units in Dyslexic Children: New Investigations.
Short content:	This study aims to show that training using a computer game incorporating an audio-visual phoneme discrimination task with phonological units, presented simultaneously with orthographic units, might improve literacy skills. Two experiments were conducted, one in secondary schools with dyslexic children (Experiment 1) and the other in a speech-therapy clinic with individual case studies (Experiment 2). A classical pre-test, training, post-test design was used. The main findings indicated an improvement in reading scores after short intensive training (10 h) in Experiment 1 and progress in the reading and spelling scores obtained by the dyslexic children (training for 8 h) in Experiment 2. These results are discussed within the frameworks of both the speech-specific deficit theory of dyslexia and the connectionist models of reading development. Keywords: reading; spelling; word recognition; training; computer-aided learning
Author:	Ecalte, J., Magnan, J., Bouchafa, H., Gombert, E.J.
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/+2.pdf

Name of the article:	Computer-based multisensory learning in children with developmental dyslexia. (2008). Restorative Neurology and Neuroscience
Short content:	Several attempts have been made to remediate developmental dyslexia using various training environments. Based on the well-known retrieval structure model, the memory strength of phonemes and graphemes should be strengthened by visual and auditory associations between graphemes and phonemes. Using specifically designed training software, we examined whether establishing a multitude of visuo-auditory associations might help to mitigate writing errors in children with developmental dyslexia. Conclusion: Three-month of visual-auditory multimedia training strongly improved writing skills in children with developmental dyslexia and non-dyslexic children. Thus, according to the retrieval structure model, multi-sensory training using visual and auditory cues enhances writing performance in children with developmental dyslexia and non-dyslexic children. Keywords: developmental dyslexia, multisensory learning, computer- based training
Author:	Kast, M., Meyer, M., Vogelic, Ch., Gross, M., Jancke, L.
Language	
Source:	

Name of the article:	Learning disabilities and the auditory and visual matching computer program. (2008). Support for Learning
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Short content:	This study examined whether audiovisual computer training without linguistic material had a remedial effect on different learning disabilities, like dyslexia and ADD (Attention Deficit Disorder). This study applied a pre-test–intervention–post-test design with students (N = 62) between the ages of 7 and 19. The computer training lasted eight weeks occurring twice a week for 15 minutes per session. After the training period, an improvement in the auditory-visual matching test was found. According to the hypothesis of this study, the youngest children with dyslexia would benefit most from the intervention. However, the training had also a positive effect on auditory-visual matching with older students with dyslexia. Surprisingly, the students with ADD benefited from this intervention. According to the teachers, this intervention had also a positive effect on the students' school behaviour. Key words: auditory and visual matching, dyslexia, ADD, intervention.
Author:	Tormanen, M., R., K., Takala, M., Sajaniemi, N.
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/+21.pdf

Name of the article:	Learning to Read Words: The Effects of Internet-Based Software on the Improvement of Reading Performance.
Short content:	Two design experiments were conducted to improve the word recognition performance of students at risk of school failure. In Study 1, an Internet-based software from the TELE-Web project was used to remediate the word recognition performance of 4 students at risk of retention and reading disabilities in first grade. In Study 2, the Internet-based software was used with an entire classroom of first-grade students in an effort to prevent reading difficulties and to accelerate reading performance. The results indicated that TELE-Web was effective in improving sightword recognition and that these improvements transferred to a standardized measure of reading achievement. These findings suggest the promise of Internet-based software in supporting the reading programs of young readers at risk for retention or referral.
Author:	Englert, C.S., Zhao, Y., Collings, N., Romig, N.
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/+8.pdf

Name of the article:	Supporting Struggling Writers Using Technology: Evidence-Based Instruction and Decision-Making
Short content:	This report examines and summarizes the research base for the full range of technologies to support writing. These technologies are not meant to replace good writing-as-process instruction. Instead, they provide scaffolding for basic writing skills, especially for students who struggle. Technological scaffolding provides a compensatory function in that it permits students to perform at higher levels of proficiency. Technology that provides such a compensatory function is called assistive technology when used by students with disabilities to enhance their functioning on writing tasks, especially when instructional or remedial approaches have



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	failed to develop the required skills. This report provides guidance on choosing and implementing technologies to support writing and writing instruction. It also serves as a framework for including technologies (software and devices) in www.TechMatrix.org , an online database of technologies reviewed for assistive and accessibility features maintain
Author:	George R., Peterson-Karlan, G. R., Parette, H. P.
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/+7.pdf

Name of the article:	The Effectiveness of Oral Expression through the use of Continuous Speech Recognition Technology in Supporting the Written Composition of Postsecondary Students with Learning Disabilities.
Short content:	The purpose of study was to examine the compensatory effectiveness of oral expression through the use of continuous speech recognition technology on the written composition performance of postsecondary students with learning disabilities. This writing mode was compared to a popular accommodation involving oral expression, using a human transcriber to create a verbatim transcription, and to a common visual-motor method of writing, using a keyboard without assistance. Data revealed that students with learning disabilities in the area of written expression wrote significantly higher quality essays at a faster rate using the transcription and speech recognition modes of writing than they did using the keyboarding method of writing. This study suggests that current continuous speech recognition technology can offer postsecondary students with learning disabilities a method to write that is superior to keyboarding as indicated by measures of quality and rate of production.
Author:	Conrad, S., R.
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/+15.pdf

Name of the article:	Relation of Native-Language Reading and Spelling Abilities to Attitudes Toward Learning a Second Language
Short content:	he authors investigated the relation of foreign language attitudes and perceptions to reading and spelling skills for 278 English-speaking college students enrolled in 100- and 200- level foreign language classes, using the Foreign Language Attitudes and Perceptions Survey , the Test of Dyslexia-Rapid Assessment Profile, and the Woodcock–Johnson III Reading Fluency Test. Spelling, silent reading fluency, orthography, and listening vocabulary correlated modestly but significantly with foreign language attitudes and perceptions; that is, students with weaker reading and spelling scores exhibited more negative attitudes and perceptions toward foreign-language learning ($p < .05$). Mean difference analyses for high-, middle-, and low-risk groups (on the basis of spelling scores) revealed significant differences in attitudes ($p < .05$); however, the authors noted no significant differences on the basis of the language being studied. In general, the results confirm that college students with
Author:	Scott, K. W., Bell, S.M., McCallum, R. S.



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Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/+25.pdf

Name of the article:	Second Language Learning and Reading with the Additional Load of Dyslexia
Short content:	This article examines the various factors involved in these difficulties and proposes some procedures for determining whether the reading problems are primarily due to linguistic factors, sociocultural factors, or specific learning problems such as dyslexia. The discussion of linguistic factors includes a closer examination of the concept of language proficiency. Dimensions of individual differences in the ability of second language (L2) acquisition are specified. Particular emphasis is given to the role of verbal working memory in L2 acquisition and to neuropsychological aspects. A popular target for recent research has been the orthographic structure of the language, and a general assumption has been that transparent orthographies, such as Italian or Finnish, are easier for a learner to deal with than deep orthographies. Some recent large-scale comparative surveys of reading literacy have not been able to demonstrate the impact of orthographic structures, as other, more powerful explan
Author:	Lundberg, I.
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/+26.pdf

Name of the article:	Mathematics Anxiety in Secondary Students in England
Short content:	Whatever the changes that are made to the mathematics curriculum in England, there will always remain a problem with mathematics anxiety. Maths anxiety is rarely facilitative. This study examined aspects of mathematics in secondary schools and how students rated them as sources of anxiety. Over 2000 students in independent and mainstream schools in England completed a 20-item questionnaire designed to investigate maths anxiety levels. The same questionnaire was given to over 440 dyslexic males in specialist schools within the same age range. The results showed that examinations and tests create high levels of anxiety in approximately 4% of students. The results suggest that certain aspects and topics in the maths curriculum, such as long division, cause similar levels of anxiety for students in all year groups in secondary schools. Keywords: maths anxiety; dyscalculia; dyslexia; maths learning difficulties; test anxiety; mental arithmetic
Author:	Chinn, S.
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/+9.pdf

Name of the article:	Visual-Sequential and Visuo-Spatial Skills in Dyslexia: Variations According to Language Comprehension and Mathematics Skills
Short content:	This study focused on visual-sequential and visuo-spatial functions in a group of 39 heavily dyslexic children, compared to a Control group. Mean



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	age was 12.72 (SD 1.71). The dyslexia group was divided into three subgroups by language comprehension and mathematics skills. Only on a visual-sequential task was no difference seen between the groups. The main differences occurred between the two dyslexic subgroups with no language comprehension impairment, but with varying mathematics skills. Whereas the subgroup with good mathematics skills scored within the upper ranges, the mathematics-impaired subgroup showed significantly lower scores. The third dyslexic subgroup, with both language comprehension and mathematics impairments, performed within the norm. The study indicates a dissociation between language comprehension and visuospatial skills in dyslexia, which has implications for how variations in dyslexia should be understood.
Author:	Turid, H., Arve, A.
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/+10.pdf

Name of the article:	Mathematics and Dyslexia - An Overlooked Connection
Short content:	This paper describes various kinds of learning disability. It is suggested that the connection between mathematical difficulties and dyslexia has been largely overlooked by educators. Students' failure to understand how the number system works and the resultant failure to appreciate place values account for many of the mathematical difficulties experienced by dyslexic learners. Keywords: dyscalculia; dyslexia; mathematics; place value; teaching strategy
Author:	Malmer, G.
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/+14.pdf

Name of the article:	Understanding words, understanding numbers: An exploration of the mathematical profiles of poor comprehenders
Short content:	This study aimed to explore the mathematical profiles of poor comprehenders. Given that language impairment is associated with difficulties with mathematics, and that poor comprehenders tend to have oral language weaknesses, we hypothesized that poor comprehenders would show relative weaknesses in aspects of mathematical performance. From a sample of 109 children aged 7-8 years, we selected 14 poor comprehenders and 14 controls with age-appropriate reading comprehension ability. Comparison of the performance of the group of poor comprehenders with that of the matched controls on two standardized measures of mathematical ability, one measuring procedural arithmetic prowess and the other tapping higher-level mathematical reasoning. Although there were no group differences in performance on the arithmetic measure, the poor comprehenders showed significantly lower scores than the controls on the mathematical reasoning task.
Author:	Pimperton, H., Nation, K.
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/+17.pdf



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Name of the article:	The Dyslexic Student and Mathematics in Higher Education
Short content:	Difficulties that are encountered by dyslexic undergraduates with their learning and understanding of mathematics are explored. Specific consideration is given to issues arising through mathematical content, its delivery, the procedures and processes of 'doing' mathematics, and its assessment. Particular difficulties, which have emerged through exploratory and explanatory multiple-case studies, and witnessed through the provision of one-to-one support to a dyslexic and dyspraxic engineering undergraduate, are detailed. Recommendations for the provision of mathematical support to dyslexic students and proposals for future research are given.
Author:	Perkin, G., Croft, T.
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/+19.pdf

Name of the article:	Dyslexia and learning computer programming
Short content:	This paper explores some of the issues associated with teaching computer science to students with dyslexia. Issues associated with both student learning generally and computer science specifically are considered. The accessibility of teaching materials made available through virtual learning environments (VLEs) is addressed. Twelve resulting guidelines particularly relevant to students with dyslexia are outlined. More specifically to computer science, the issues associated with programming are explored through the development of a mapping of the features of dyslexia to the tasks involved in writing a computer program. Preliminary evidence, from both the wider dyslexia community with computer programming experience and some early interview results, are presented to both support the mapping and draw out other important issues. Keywords: dyslexia; computer programming; virtual learning environments
Author:	Powell, N., Moore, D., Gray, J., Finlay, J., Reaney, J.
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/+12.pdf

Name of the article:	Complex Imitation of Gestures in School-Aged Children with Learning Difficulties.
Short content:	The aim of this article, therefore, was to draw attention to this problem and prove how teachers of different subjects can easily recognize pupils with DCD. Prompt recognition enables fast intervention, resulting in progress in the movement abilities of pupils with DCD. Our research has shown that we can discriminate between pupils with learning difficulties and those without them on the basis of 20 tasks of the Bergès-Lézines Test of Imitation of Gestures. In particular, we wish to emphasize three tasks (72, 17, and 20) in which pupils had to cross the vertical midline of the body. Individuals with DCD face problems in spatial orientation and in



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	complex imitation of gestures. Pupils classified into two groups (with and without motor coordination and learning difficulties) based on differences found in tasks requiring them to cross the vertical midline of the body and rotate their hands. Learning difficulties can be predicted by pupils performance doing such specific tasks.
Author:	Ozbic, M., Filipcic, T.
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/+18.pdf

Name of the article:	Understanding words, understanding numbers: An exploration of the mathematical profiles of poor comprehenders. (2010)
Short content:	This study aimed to explore the mathematical profiles of poor comprehenders. Given that language impairment is associated with difficulties with mathematics, and that poor comprehenders tend to have oral language weaknesses, we hypothesized that poor comprehenders would show relative weaknesses in aspects of mathematical performance. From a sample of 109 children aged 7-8 years, we selected 14 poor comprehenders and 14 controls with age-appropriate reading comprehension ability. Comparison of the performance of the group of poor comprehenders with that of the matched controls on two standardized measures of mathematical ability, one measuring procedural arithmetic prowess and the other tapping higher-level mathematical reasoning. Although there were no group differences in performance on the arithmetic measure, the poor comprehenders showed significantly lower scores than the controls on the mathematical reasoning task.
Author:	Pimperton, H., Nation, K.
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/+17_1.pdf

Name of the article:	Visual-Sequential and Visuo-Spatial Skills in Dyslexia: Variations According to Language Comprehension and Mathematics Skills
Short content:	This study focused on visual-sequential and visuo-spatial functions in a group of 39 heavily dyslexic children, compared to a Control group. Mean age was 12.72 (SD 1.71). The dyslexia group was divided into three subgroups by language comprehension and mathematics skills. Only on a visual-sequential task was no difference seen between the groups. The main differences occurred between the two dyslexic subgroups with no language comprehension impairment, but with varying mathematics skills. Whereas the subgroup with good mathematics skills scored within the upper ranges, the mathematics-impaired subgroup showed significantly lower scores. The third dyslexic subgroup, with both language comprehension and mathematics impairments, performed within the norm. The study indicates a dissociation between language comprehension and visuospatial skills in dyslexia, which has implications for how variations in dyslexia should be understood.
Author:	Turid, H., Arve, A.
Language	English



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Source:	http://www.dyslexia-project.eu/rpool/resources/+10_1.pdf
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Name of the article:	The Dyslexic Student and Mathematics in Higher Education
Short content:	Difficulties that are encountered by dyslexic undergraduates with their learning and understanding of mathematics are explored. Specific consideration is given to issues arising through mathematical content, its delivery, the procedures and processes of 'doing' mathematics, and its assessment. Particular difficulties, which have emerged through exploratory and explanatory multiple-case studies, and witnessed through the provision of one-to-one support to a dyslexic and dyspraxic engineering undergraduate, are detailed. Recommendations for the provision of mathematical support to dyslexic students and proposals for future research are given.
Author:	Perkin, G., Croft, T.
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/+19_1.pdf

Name of the article:	Critical review of reading models and theories in first and second languages
Short content:	Reading models have been much discussed by researchers and language practitioners to explain the cognitive processes which occur in a readers mind. Because reading is a silent and internal process, much is left unknown in this paper, the writer attempts to critically discuss the different views of reading processes, from the perspectives of first language (L1) and second language (L2). These views are modelled into two classes, the process and componential models, and further divided into three type, the bottom-up, top-down and interactive models. Further discussion of L2 reading is also provided in the light of whether L2 reading is a language or reading problem. To provide further insights into the cognitive processes of a reader, two types of hypotheses commonly used to explain the complexities involved in L2 reading are reviewed, the language interdependence hypothesis and the language threshold hypothesis.
Author:	Zaidah Zainal
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/Zaidah_Zainal_Critical%20review%20of%20reading%20models.pdf

Name of the article:	A Short Analysis of the Nature of Reading
Short content:	This paper gives a short analysis of the nature of reading. Though it is generally believed that reading involves perceiving the written form of language, the term reading has not been clearly defined up to date. It is possible to see reading as a process, or to examine the product of that process. Three reading models, namely Bottom-up Model, Top-down Model and Interactive Model, are discussed in this paper.



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Author:	Feng Liu
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/Feng_Liu_short_analysis_nature_reading.pdf

Name of the article:	On advantage of seeing TEXT and hearing SPEECH
Short content:	The aim of this study was to examine the effect of congruence between the sensory modality through which a concept can be experienced and the modality through which the word denoting that concept is perceived during word recognition. Words denoting concepts that can be experienced visually (e.g. "color") and words denoting concepts that can be experienced auditorily (e.g. "noise") were presented both visually and auditorily. We observed shorter processing latencies when there was a match between the modality through which a concept could be experienced and the modality through which a word denoting that concept was presented. In visual lexical decision task, "color" was recognized faster than "noise", whereas in auditory lexical decision task, "noise" was recognized faster than "color". The obtained pattern of results can not be accounted for by exclusive amodal theories, whereas it can be easily integrated in theories based on perceptual representations.
Author:	Živanović Jelena ; Filipović-Đurđević Dušica
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/Zhivanovich_Durdevich_on%20advantage_Of_seeing%20TEXT.pdf

Name of the article:	Components of success in academic reading tasks for Swedish students
Short content:	In a parallel-language environment students are often required to read in a language different from the one they use in lectures, seminars, and among themselves. Relatively little research has been done on the overall reading success of such groups or on the componential make up of their L2 reading skills. This paper compares the English-language reading skills of Swedish students of biology with that of equivalent British biology students. Many Swedish readers perform within or above the normal British range on the study-reading test, but the overall average score of this sample of Swedish readers was considerably lower than that of the British sample. For the Swedes study-reading success correlates significantly with vocabulary knowledge, inferencing and newspaper reading, and at a lower level for word recognition speed. For the British informants the pattern is similar, but with no significant correlation for word-recognition speed.
Author:	Philip Shaw; Alan McMillon
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/Shaw_McMillon_Components_of_success%20in%20academic%20reading%20tasks.pdf



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Name of the article:	The Effect of Using Instructional Conversation Method in Teaching Reading Comprehension in Selected Junior Secondary Schools in Kaduna Metropoli
Short content:	This study was designed to compare the effectiveness of the instructional conversation and the vocabulary methods in teaching reading comprehension in Junior Secondary Schools. The population for the study comprised all the Junior Secondary Schools in Kaduna State. The schools randomly selected within Kaduna metropolis were used for the study. The study was quasi experimental. G.S.S. U/Rimi was used as the treatment group, while G.S.S. Sabon Tasha was used for the control group. Both groups were assessed after six weeks of teaching, using three different reading assessment instruments namely cloze, word recognition and retelling tests. T-test was used to test the hypothesis raised in the study. The findings revealed significant differences in the performance of students taught reading comprehension using Instructional Conversation method. The study further revealed that students from both groups made appreciable gain in the pre-test.
Author:	Hanna Yusuf
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/Hanna_Yusuf_Instructional%20conversation.pdf

Name of the article:	The Effect of Font Size on Reading Comprehension Skills: Scanning for Key Words and Reading for General Idea
Short content:	The present study tries to investigate the effect of font size on recognition of the key textual words, to determine if the students can find the answers to some multiple choice and true/false questions easier in a text typed with a larger or smaller font size. Forty male and female students were selected through the placement test in an institute. Their reading comprehension ability with the focus on scanning for the key words and understanding general idea was measured using two reading texts with different font sizes (fonts 10 and 16) but the same level of difficulty estimated by Fog index of readability. To minimize the ordering effect, counter balanced test design was applied during the test administration. Pearson Product Correlation did not show a significant relationship between the scores of the two font sizes.
Author:	Elahe Tavakoli; Shiela Kheirzadeh
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/Elahe%20Tavakoli_Shiela%20Kheirzadeh_Effect%20of%20Font%20Size%20on%20Reading%20Comprehension.pdf

Name of the article:	Morphological strategies training: The effectiveness and feasibility of morphological strategies training for students of English as a foreign language with and without spelling difficultie
Short content:	The aim of this study was primarily to investigate the effects of morphological strategies training on students with and without spelling difficulties in English as a foreign language (EFL), but also to assess the



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	feasibility of morphological strategies training in a classroom context. The intervention was piloted in the sixth grade of a Greek primary school: 23 Greek-speaking students, aged 11-12, were assigned to the treatment group receiving explicit teaching on inflectional and derivational morphemic patterns of English words. The control group, composed of 25 Greek-speaking students of the same age, attending a different classroom of the same school, was taught English spelling in a conventional (visual-memory based) way. Both quantitative and qualitative methods were employed to gain insights: a pre- and post-test, an observation schedule, a student questionnaire and a teacher interview. The pre- and post-test results indicated that the metamorphological training yielded specific
Author:	Eleni Griva & Dimitris Anastasiou
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/Eleni%20Griva%20&%20Dimitris%20Anastasiou_Morphological%20strategies%20training.pdf

Name of the article:	Morphological strategies training: The effectiveness and feasibility of morphological strategies training for students of English as a foreign language with and without spelling difficulties
Short content:	The aim of this study was primarily to investigate the effects of morphological strategies training on students with and without spelling difficulties in English as a foreign language (EFL), but also to assess the feasibility of morphological strategies training in a classroom context. The intervention was piloted in the sixth grade of a Greek primary school: 23 Greek-speaking students, aged 11-12, were assigned to the treatment group receiving explicit teaching on inflectional and derivational morphemic patterns of English words. The control group, composed of 25 Greek-speaking students of the same age, attending a different classroom of the same school, was taught English spelling in a conventional (visual-memory based) way. Both quantitative and qualitative methods were employed to gain insights: a pre- and post-test, an observation schedule, a student questionnaire and a teacher interview.
Author:	Eleni Griva & Dimitris Anastasiou
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/Eleni%20Griva%20&%20Dimitris%20Anastasiou_Morphological%20strategies%20training.pdf

Name of the article:	Factors That Relate to Good and Poor Handwriting
Short content:	<p>This study investigated the relationships between specific performance components, eye-hand coordination, visuomotor integration, in-hand manipulation, and handwriting skill</p> <p>Method: A sample of 48 typical first grade students were identified as good and poor writers by their teachers. Each child completed the Motor Accuracy Test; the Developmental Test of Visual-Motor Integration (VMI); two tests of in-hand manipulation, including a rotation and a</p>



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	translation task; and the Minnesota Handwriting Test (MHT) . Results: All test scores for the subjects with good handwriting were significantly higher than those of the subjects with poor handwriting. Each performance component test was significantly correlated to MHT scores. Translation, VMJ, and rotation scores were significant predictors of MHT scores, accounting for almost 73 % of variance.
Author:	Heidi Camhil, Jane Case-Smith
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/Heidi%20Cornhill,%20Jane%20Case-Smith_Factors_good_Handwriting.pdf

Name of the article:	The Role of Online Collaboration in Promoting ESL Writing
Short content:	<p>The study examined an ESL writing class, which consisted of 36 students, at a community college of Hong Kong. The students took part in three online collaborative writing tasks by sending drafts to peers who gave them suggestions and comments for improvement and working together on the completion of the writing tasks via email.</p> <p>The 36 students worked in small groups of four to six. They wrote, responded and revised using the email system offered by the WebCT interface of their course book. The results were evaluated by means of questionnaire, interview with participating students, report of the peer observer, written work, e-responses and reflective summaries of students. The overall results suggest that students generally enjoyed the supportive atmosphere created by online collaborative tasks and regarded the use of online collaboration as a means of improving their writing by enhancing their motivation, awareness of the audience and the importance of revising.</p>
Author:	Jessie Wai-ching CHOI
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/Jessie%20Wai-ching%20CHOI_The%20Role%20of%20Online%20Collaboration.pdf

Name of the article:	Can Music Influence Language and Cognition? Contemporary Music Review
Short content:	<p>Evidence has suggested that music can improve behavioural performance in several domains, including intelligence. Scientists have also discovered that music can modify the brain at both functional and structural levels. Such neural changes can impact several domains, but one domain seems to be particularly influenced by music—namely, language. Music and language seem to share special features that allow music to improve and shape language processing. This review will first discuss neuroimaging findings related to music training or musical expertise. Then, the influence of music on language processing outcomes will be considered. Finally, we will look into several future directions at the theoretical level, focusing on the relationship between music and language. Also, it will be argued that</p>



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	there are plausible applications for such findings, in particular when considering music as a rehabilitation tool.
Author:	Moreno, S.
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/+22.pdf

Name of the article:	Influence of musical expertise and musical training on pitch processing in music and language . Restorative Neurology and Neuroscience
Short content:	The article reviews a series of experiments aimed at studying pitch processing in music and speech. We found that musical expertise improved pitch processing not only in music but also in speech. Demonstrating transfer of training between music and language has interesting applications for second language learning. We also addressed the issue of whether the positive effects of musical expertise are linked with specific predispositions for music or with extensive musical practice. Results of longitudinal studies argue for the latter. Finally, we also examined pitch processing in dyslexic children and found that they had difficulties discriminating strong pitch changes that are easily discriminated by normal readers. These results argue for a strong link between basic auditory perception abilities and reading abilities.
Author:	Besson, M., Schon, D., Moreno, S., Santos, A., Magne, C. (2007)
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/+24.pdf

Name of the article:	Reading and dyslexia in different orthographies.
Short content:	The development of reading skills in different orthographies; developmental dyslexia in different orthographies; neuroimaging studies of reading in different orthographies.
Author:	Edited by Nicola Brunswick, Siné McDougall and Paul de Mornay Davis
Language	English
Source:	http://www.dyslexia-project.eu/rpool/resources/Reading%20and%20dyslexia%20in%20different%20orthographies.pdf

Name of the article:	DİSLEKSİ TANITIM VİDEO
Short content:	video
Author:	Akademidisleksi izmir 0232 336 66 62
Language	Turkish
Source:	http://www.dyslexia-project.eu/rpool/resources/disleksi%20tan%C4%B1t%C4%B1m%20videosu%20%20www.akademidisleksi.com%200232%20336%2066%2062.mp4

The described Assessment tool and the Information resource pool provide valuable information and additional expertise for the teachers, educators, trainers and parents working with children with dyslexia and will be included in the functionality of the “Understand and Teach” Platform.

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