

**ADULT DYSLEXIC; MOTIVATIONAL INTERVIEW STRATEGIES,  
SCREENING INSTRUMENT-ON THE NET  
ISL/04/B/F/PP-164001**

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**Abstract:** The use of the new technologies in education has become in the last years a common aspect and it is tried more and more to introduce them as a help tool for certain target groups.

The Admission project aims at using the e-learning strategies in order to help the adult dyslexic perceive and overcome the problems raised by dyslexia by developing a screening-instrument that detects the main characteristics of dyslexia both primary and secondary symptoms and developing motivational intervention technique in counselling and supporting the dyslexics.

**Keywords:** Software Engineering. Models, Methods and Tools.

## 1 E-LEARNING STRATEGY

The e-learning approach was not the first goal of this project but after first evaluation and diagnosis regarding the products, the processes and the future vision of the global consortium, especially the vision described by the two mentors of the project *Audur Gunnarsdottir* and *Sjofn Agustsdottir*, ORT decide to introduce strategy of e-learning solutions and services within strategic objectives: building the future of learning and delivering the value chain of e-learning.

So in the track of Bob Bissell from the Glasgow Caledonian University, we act in the follow up of activities by acceptance of the performance analysis

of the e-learning process, and the important measurable in the evaluation of the future adaptive e-learning field.

Presentation of the user's web interface for training within Admission:

[http://opera.paris.ort.asso.fr/moodle/\\_admission/prototype/](http://opera.paris.ort.asso.fr/moodle/_admission/prototype/)

The Prototype, using the LMS Moodle, has been shown with the following characteristics:

- Flash technology
  - General functionalities
  - Login/Password system
  - Collaborative Tools:
    - List of members

- Messages
- Chat
- Forum
- Contact
  - ✓ your teacher
  - ✓ your tutor
  - ✓ your all class-room
- Video conference
- Whiteboard
- "User's Tools" containing
  - My profile
  - Users actually on-line
  - Calendar of next meetings
  - Search" engine with question zone
  - Glossary
  - Other resources

It is a common understanding that dyslexia affects people's ability to learn to read, write and spell and is perceived as an educational problem. The needs of an adult dyslexic can be quite different from those of the child dyslexic (Patton and Polloway '92). Even those who overcome childhood difficulties continue to experience problems in living, learning and working. There is a large number of undiagnosed adult dyslexics who face problems of life adjustments without knowing that they are bright enough to achieve but are inefficient and ineffective when learning and applying knowledge (Ryan and Price '92).

There is a lack of knowledge and training material on supporting and counselling the dyslexic and the ADMISSON emphasis in the project to provide explicit training materials and guidelines on both the main characteristic of the dyslexia, the conditions of the dyslexia and strategies on how to identify and screen the dyslexia and the first interview in the counselling process, with the motivational interview strategies. This material will be accessible on the webpage for educational and vocational counsellors as well as other professionals working with dyslexia.

Knowledge on the strengths of dyslexic especially those who have developed sophisticated compensating strategies in live, learning and at work are accumulating. By gathering information about learning style, technical aids and methods that are effective for dyslexic and put it in a database available on the web it can meet the need both for the dyslexic adult who is taking on new tasks in learning situations or at work or is developing his or her compensating strategies and for teachers, tutors and counsellors who are finding strategies to support the dyslexic.

In the evaluation of the screening instrument and the counselling strategies the ADMISSON will focus on both how the individual user and the reliability of the methods.

A webpage serves both as a dissemination link to the project as well as longstanding information -database

The user's interface will be feeded by an XML RSS system feed and will also provide the same XML production for the other websites of the partners.

### *1.1 Background.*

Studies show that 4% of the population is affected to a significant extent by dyslexia (American Psychiatric Association 1994, Thomson, 1993) and because it is frequently undiagnosed in childhood, it is suggested that the number of adult -dyslexics in the population is at least 1 in 25 adults.

on dyslexia, for dyslexic in live, learning and working and a base for theoretical and practical material about dyslexia. The screening instrument and the motivational interview strategies with guideline in using it will also be available to those counselling and tutoring the dyslexic.

### *1.2 Details.*

The aims of the project are:

- Analyse the training need in the educational and vocational system for counselling strategies in approaching and working with dyslexic adults;
- Identify and screen adults dyslexics in the educational and vocational system;
- Provide counsellors and other relevant professions supporting and counselling the dyslexic with systematic approach in counselling the dyslexic;
- Developing a screening-instrument that detect the main characteristics of dyslexia both primary and secondary symptoms;
- Develop motivational intervention technique in counselling and supporting the dyslexics;
- Provide a handbook and manual for screening instrument in Icelandic, Danish, English and French;
- Provide a handbook and a manual for motivational interview technique in Icelandic, Danish, English and French;
- Build a database for best practice in assisting the adult dyslexic;
- Build up a website with the screening instrument and the motivational interview strategies to be used on the internet in Icelandic, Danish, English and French;
- Evaluate the usefulness and effectiveness of the screening instrument in different countries and the motivational interview strategies;
- Raise awareness of the conditions of the young adults and adults dyslexic in the educational and vocational system and in broader term, living, learning and working.

### *1.3 Target group.*

Young adults (16–25 years) and adults with dyslexia in the educational and vocational system, educational and vocational counsellors in the educational and vocational training system.

Other groups that can benefit from the results of the project:

- Special teachers, trainers and tutors working with the dyslexic.
- Professionals in the health and the social services working with the dyslexic and staff manager and employees willing to gain more knowledge of dyslexia and about compensating strategies that are helpful in working and learning.

### *1.4 Original contribution to introducing changes into national vocational training systems and practices and European strategies for vocational training.*

In the project, network is formed with resources from several European countries. These partners have both trained professionals working in the educational and vocational system, which have access to broad scale of knowledge and expertise in counselling and researching.

With this network it is possible to gather practical information on counselling the dyslexic and strategies and learning aids helping both the dyslexic and staff supporting, tutoring and counselling them as well as strengthen the European network.

With the project there will be developed approach in counselling and finding strategies and solution for assisting the dyslexic in a more accurate and systematic way.

This can add a value to the educational and vocational training system which is in need for special training of staff supporting the dyslexic. The emphasis is on the strength of the compensating strategies developed by the dyslexic already successful and to adapt counselling strategies proved to be effective in the health system and apply them in counselling the dyslexics.

By developing a screening instrument for identifying and screening the dyslexic which can be used within the educational and vocational system the assistance and service to the dyslexic can reach them earlier in the process of counselling and supporting and are more likely to reach more of them sooner. The screening of the adult dyslexic in the project is set to detect both the primary and secondary symptoms of dyslexia where in most cases only the primary symptoms are assessed in the traditional screening and diagnosing and often with adult dyslexic the dyslexia is undetected. The group of adult dyslexic who are in need for counselling and training and seek admission or assistance in the educational and vocational system are getting larger.

By developing tools that can be used by number of people assisting the adult dyslexic already in the educational and vocational system, the referral to different counselling levels where the various needs of the dyslexic are better met become more likely. Information on screening, effective learning styles and methods and helpful technical aids are scattered the project will make a base for these information provided on a special website accessible to potential users at hand.

The screening instrument and the motivational interview strategies as well as guideline in using the material in counselling the dyslexic and relevant topics on dyslexia will also be available on the webpage in the ADMISSION.

### *1.5 The innovation of the proposal.*

Only few institutions in Europe have a screening instrument for detecting adult dyslexia and only then they detect primary symptoms. The screening instrument that will be developed in the ADMISSION will provide screening instrument that detect both primary and secondary symptoms of dyslexia and can be used by counsellors and specialist working with adult dyslexia.

Theory and practical work of Miller, on motivational interviewing will be adapted to be used in the educational and vocational counselling system for dyslexics. Emphasis is placed on secondary difficulties many adult dyslexic are facing in living learning and working where they deal with both their own earlier experiences of ignorance about their learning difficulties at school and at home and their own damaged self-esteem which is often a great hindrance in making important and sometimes necessary changes in their adult life.

The counselling methods and strategies are linked to the counsellors knowledge of problems and special training of identifying and screening the problems and on that basis needs of the individual for various kinds of assistance, counselling or training are met. The project adds to the knowledge of learned professionals who have counselling and teaching skills but lacks knowledge about dyslexia and special skills to counsel them or find strategies and solution for them.

### *1.6 The project has 7 important phases:*

#### **I Project Management**

The project management committee will meet 3 times over the 2.5 years of the program and will have contact through other means by online meetings, phone, e-mail etc, at least once a month over the project lifetime.

#### **II. Designing a screening device for primary and secondary symptoms of dyslexia**

Literature-research on screening dyslexia will be carried out. Relevant screening devices already known to detect primary symptoms of dyslexia will be evaluated. Psychological and psychosocial variables known to contribute to the condition of the adult dyslexic will be used in designing the part of the screening for secondary symptoms. Theory on dyslexia will be used for the development of the screening and the experience of counsellors and special teachers working with dyslexia. Professional will be trained to use the screening. Testing will be made in a group of dyslexic and evaluated. Scotland will be responsible and will design tools to evaluate the screening device. Statistical and qualitative analyses will be made. The screening will be design from results of the developmental work performed. A first version of the screening device ready for the web will be designed at the end of the second year.

### III Motivational interview strategies

The theory and work of Miller on motivational interview strategies will be used and adapted to the dyslexic group. Theory and research on motivation and the research results on motivational interview strategies used successfully for young adult at risk will be used as a basis for the adapting the motivational strategies for the dyslexic group. The interview strategies will be tried out and tested on a dyslexic group. Results will be analyzed. Design will be based on theory and practice of the motivational interview strategies. Evaluation will be made on the work-package. Electronic handbooks will be provided and a first version of a multimedia educational software on motivational interview strategies.

### IV Evaluation of the project

The Caledonian University designs the evaluation strategies, makes questionnaires for a need-analysis on training needs which will be put forward in the educational and vocational counselling system in Denmark and Latvia. Scotland will make questionnaires to be used by participants in the evaluation of the screening and the motivational interview strategies as well as in testing them. The questionnaire will be put forward for trainers, counsellors and the dyslexic group of adult participants.

### V. Multimedia educational software for counselling the dyslexic

This phase will follow the next steps:

- Software Project management
- Defining the software (needs analysis, structure, etc)
- Design a prototype
- Visual design, writing scripts (interface, graphics, video, audio, text, etc)
- Develop and program the software
- Testing the software
- Production and place on website

### VI Dissemination

Make educational -support-material on dyslexia accessible on the web for adult dyslexic, public and professionals working with dyslexia.

Produce and make the new devices produced in the project accessible, a manual, handbook and multimedia-educational software on the screening device and the motivational interview to be used with dyslexia.

Train professionals working with dyslexia in the educational and vocational system in using the products of the ADMISSION.

Involve important parties in the partner countries in the development of the project and its products and find reliable persons within the educational and vocational system to maintain the product of the project.

Inform the public through community channels in the partner countries.

Participate in a conference on dyslexia.

The target groups will be approached through the educational and vocational system, others through media mean newsletters, newspaper, discussion meetings etc. Counsellors and other professionals will be trained on the devices produced in the project and they will carry out these new devices into their professional field of working. The adult dyslexic will be approach through counsellors and special teachers in the educational and vocational system. The network of the partners will be used as a base for the dissemination to professionals and others involved and interested in the condition of the adult with dyslexia.

### VII. Website

This phase will follow the next steps:

- Defining the site
- Develop site structure
- Visual design and testing
- Production and quality assurance
- Usability testing
- Make intranet for communication between partners (set up a team collaboration solution)
- Web hosting
- Web maintenance

### 1.7. Results expected.

*The main results consist of:*

1. The webpage;
2. The screening instrument and motivational strategies in counselling;
3. Handbooks and manuals for the screening instrument and the motivational strategy;
4. The screening instrument and the motivational interview strategies as well as guidelines in using;
5. Information about learning and technical aids and tools;
6. Seminars and Workshops on using the screening instrument and the counselling strategies with the dyslexic.

### *1.8 Dissemination of the project.*

The network of the partners in the project is a resource for information on dyslexia, the dyslexic conditions and are a main stream on raising awareness of the matters of dyslexic in the population. Through discussions, seminars, article and information on the webpage both on the development of the project and the fulfilment of the aims of the project as well as important matters

concerning dyslexia the project and relevant topics will be disseminated.

Educational and vocational counsellors as well as other professionals that will be trained in the counselling strategies identifying, screening and motivational interview technique specially designed for supporting the dyslexic will add new ideas and skills into their working places.

Workshops on using the screening instrument and the motivational interview strategies held in the second year of the project will be open for other counsellors and professionals working with dyslexia and other potential users.