



VR*ALEXIA*



Partnering Outside the Box: Digital and Artificial Intelligence Integrated
Tools to Support Higher Education Students with Dyslexia

7rd April 2022





Co-funded by the
Erasmus+ Programme
of the European Union



ToT: Training of Trainers

*Department of Philosophy, Social Sciences, Humanities and
Education*

University of Perugia

Annalisa Morganti, Ph.D.

Claudia Mazzeschi, Director of Department

Elisa Delvecchio, Ph.D.

Moira Sannipoli, Ph.D.



A.D. 1308
unipg
UNIVERSITÀ DEGLI STUDI
DI PERUGIA

Agenda of first session

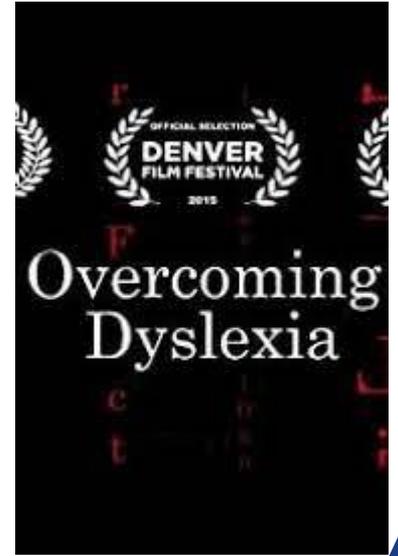
- **Starting activity**
- **Emerging Adulthood**
- **The University student with Dyslexia**
- **Taking charge of the student with
Dyslexia**
- **Workshop session**

Starting Activity



Acrostic: Dyslexia

*Let's start with
some testimonials....*



...an award winning short documentary about one family's struggle with the public school system to provide their dyslexic son the necessary tools needed for him to learn....

The learning path is not easy...It is often tiring, painful...

Many students, after compulsory education, drop out of school...

Emerging Adulthood

EMERGING ADULthood



Phase of life in which the young adult (18 to 29 years old approx.) is confronted with new developmental tasks, goals, motivations and values and the construction of his or her own future life project (Arnett, 2000)

IDENTITY

Evolutionary task → Construction of one's identity "...the awareness of the fact that there is a self-sameness and continuity to the ego's synthesizing methods, the style of one's individuality, and that this style coincides with the sameness and continuity of one's meaning for significant others in the immediate community" (Erikson, 1968).

NARRATIVE IDENTITY

Specific dimension of the self: it refers to the personal and evolutionary story that an individual creates, consciously and unconsciously, and internalizes, allowing different aspects of the self to come together.

Constructing and internalising a (life) story provides meaning and purpose to individuals and allows for the re-activation of the generativity necessary for any project, academic or life.

The narration of the Self and of one's own life story helps the person to find a balance and a greater centring between:

- The dimension of agency and communion
- Individual and interpersonal motivational aspects (Bakan, 1966)

ITSELF

Multidimensional concept: includes various aspects such as the general perception of oneself (self concept or self-perception), self-esteem, the sense of one's own efficacy, the estimate of one's own competence.

Dynamic entity: complex product of the interaction between personal and environmental aspects (family, social, cultural).

In broad terms, it indicates a person's sense of him/herself and encompasses his/her identity as both "who I am" (i.e. as a sense of existence) and "who I am". (i.e. as a sense of existence) and, afterwards, "who I am" (i.e. what makes me unique, what makes me worthwhile). (i.e. what makes me unique, similar and/or different from others).

The sense of self includes:

- Cognitive aspects (how I represent myself) and affective aspects (how I feel and what I feel)
- General aspects (e.g.: I/me as a person) and specific aspects (e.g.: I/me as a student)
- Their possible intersections

The University student with Dyslexia

STUDYING AT UNIVERSITY

- The University years represent a bridge between adolescence and adulthood, a turning point, which requires facing new challenges related to growth and change (Graber & Brooks-Gunn, 1996).
- The University is one of the contexts that promotes the construction of a projectuality during the transition period in which the young person is engaged in the construction of his or her own identity, exploring and defining his or her own Self, confronting different areas of life such as study (Arnett, 2000).
- The University, for the young person embarking on this path, is an important context in this transitional phase, which if on the one hand offers the opportunity for the implementation of tasks, including psychological, typical of late adolescence, on the other hand can represent a stressful life event, with an impact on his psychological well-being (Conlon, 2002).

THE UNIVERSITY STUDENT WITH DYSLEXIA

Experiencing learning difficulties (e.g. dyslexia) can represent for students a factor of greater vulnerability for their self-esteem, also in terms of skills and sense of power in determining their university career autonomously.

The university (professors and administrative staff) can help students to understand and expand their self-concept and their career, (also) with a view to promoting psychological well-being.

In this sense, the university can be an active promoter of a process of change, making students feel supported during the process of defining their identity and their university project, promoting positive attitudes and stimulating the skills and resources they are able to put in place to cope with difficulties.

STRENGTHS

- **Normal or high intelligence**
- **Creativity**
- **Visual thinking**
- **Intuition and ability to synthesise**
- **Good problem solving skills**

What skills?
What
difficulties?

CRITICAL AREAS

- **Slowness and fatigue while studying**
- **Difficulty understanding text**
- **Difficulty organising and managing time**
- **Difficulty learning data in sequence**
- **Difficulty copying from the blackboard**

SELF-REPRESENTATION IN THE LEARNING DIFFICULTIES OF DYSLEXIC STUDENTS

Learning disorders (e.g. dyslexia) during the university course can generate a feeling of inferiority towards oneself and one's own competences that originate from the comparison between one's own abilities, the demands of the environment and society, the comparison with others:

- Repeatedly failing to measure oneself against peers predisposes towards the development of a sense of worthlessness and inadequacy (Proffit, Fields, Sarver, 2008).
- On the basis of attributions (personal and/or contextual) and incorrect experiences of these difficulties, the student builds up a representation of him/herself as incapable - inadequate - which leads to a lack of confidence, low self-esteem, shame and which can drag on in the medium-long term.

CLINICAL MANIFESTATIONS

The clinical expression of a weak self affects emotional functioning, the relationship with reality, intellectual functioning, family dynamics and social relationships.

Self-image and feelings of self-esteem are so closely related to the university experience that many emotional and social resources are polarised around successful completion of tasks.

The greatest danger for students with dyslexia is to structure inhibitory behaviours or depressive manifestations.

The perception of inadequacy becomes pervasive in many aspects of their reality, both internal and external.

The discomfort can be expressed by:

- Loss of self-esteem and attempts at anxious defence
- Devaluation of the demands of learning
- Intolerance to frustration

CLINICAL MANIFESTATIONS

- Numerous research data show that students with dyslexia, compared to their peers without this learning disorder, report:
 - A lower self-image
 - A lower sense of self-efficacy
 - A passive approach to intellectual functioning (little confidence in their own cognitive abilities; they experience themselves as incapable of knowing and learning; they tend to avoid any prolonged contact with intellectual processes because it puts them in contact with the possibility of failure; an impulsive, non-metacognitive cognitive functioning prevails, which worsens performance)

Taking charge of the student with Dyslexia

ITALIAN UNIVERSITIES: Different tools for information and analysis

Guidelines

Vademecum

Regulation

Services Charter

→ **AIM:** to build a common language and practices of intervention in the same University

Guidelines

LAW 8, 2010, n. 170

"Students with specific learning disorders are guaranteed adequate forms of verification and assessment during their school and university education and training, also with regard to state and university entrance exams and university exams" (DSA Guidelines, MIUR, 2001).

CNUDD Guidelines (www.cnudd.it)

Basic indications for the provision, while respecting the autonomy of each university, of appropriate and as homogeneous services as possible inspired by shared principles of acceptance, participation, autonomy and integration of students with specific learning disorders.

The commitment is to promote and support access to university.

Services

ACCESS TO SERVICES: The need for self-reporting

- In order to access the services provided by the University, including for the purposes of admission tests to study courses, students must present a clinical diagnosis of dyslexia.
- The self-diagnosis represents an acknowledgment of the identity of the student who, as a young adult, can take control of his/her condition and decide autonomously how to move in the new course of study.

ITALIAN MODEL

**SERVICE
FOR STUDENTS
WITH DYSLEXIA**

INCOMING ORIENTATION

ACCESSIBILITY OF COMMUNICATIONS (website and documents)

COMPENSATORY AND DISPENSATORY MEASURES

TECHNOLOGICAL AND DIDACTIC AIDS

TECNOLOGY LABORATORIES

MEDIATION WITH TEACHERS AND REFEREES

TUTORING

PSYCHOLOGICAL COUNSELING SERVICE

PEDAGOGICAL COUNSELING SERVICE

OUTGOING ORIENTATION

INCOMING ORIENTATION

The first opportunity for students to meet universities is represented by entry orientation practices through:

- Travelling exhibitions in schools or permanent ones in the universities in specific periods
- Individual and personalised meetings with the University orientation services

WEBSITE

Most universities provide information on student services through:

- Specific sections
- Sections dealing with Dyslexia
- General sections dedicated to student services

COMPENSATORY AND DISPENSATORY MEASURES

- The guidelines - Law n. 170/2010: compensatory tools and dispensatory measures can be proposed to the student, both during the teaching activity and during the performance of admissions, verification and assessment tests.
- Matriculation and enrolment at University: compilation of in-depth forms that allow the student to tell his school history, indicating compensatory tools and dispensatory measures used in the secondary school course.
- Objective: to identify the most appropriate and functional intervention right from the start of the university course.
- Given the great variability of the manifestations of dyslexia and the different characteristics of the students, it is advisable to assess the most suitable compensatory tools for the individual pathway in a personalised manner, also in relation to the specifics of the individual disciplines and the aims of the study courses.

EXAMPLE COMPENSATORY TOOLS

- Digital recorder
- PC with spell-checker
- Texts in digital format
- Speech synthesis programmes
- The presence of a tutor to act as a reader if it is not possible to provide examination materials in digital format
- Calculator
- Tables and forms
- Concept and mind maps
- Teaching materials in accessible formats (presentations, handouts, exercises), provided if necessary in advance of the lessons

EXAMPLE OF DISPENSATORY MEASURES

- Dividing the examination subject into several part-tests
- Giving preference to oral rather than written examinations, also taking into account the individual ability profile
- In the case of written examinations, check whether the chosen format (e.g. multiple-choice or closed-response tests) represents an obstacle and whether it can be replaced by other forms of written assessment; alternatively, provide for the quantitative, but not qualitative, reduction of the test itself, or the granting of additional time, up to a maximum of 30%, for the performance of the test
- Considering content rather than form and spelling in the assessment

TECHNOLOGICAL AND DIDACTIC AIDS

In a learning environment such as that of the University, it is particularly important to have aids that support students in their daily activities related to teaching (attending lectures and individual study) and in accessing information.

The use of aids must be allowed, when necessary, also in activities requiring oral or written production (in itinere tests, profit exams).

In almost all situations, the use of technological aids must be accompanied by the availability of accessible teaching materials: provide the student with the accessible format appropriate to his needs (digital format, etc.).

Digital whiteboards and audio/video recording systems of lessons can be a particularly useful tool to provide learning materials directly in digital format.

Materials can be transmitted in advance to students or uploaded later on teaching platforms (respecting accessibility and readability guidelines).

TECHNOLOGY LABORATORIES

These are spaces equipped with information and communication technologies, available to all students with dyslexia.

Assistive and compensatory technologies for communication, learning and access to information tools (hardware, software and web), present in the laboratories, can support the study and research moments of students with dyslexia and support them in finding the most appropriate compensatory tools.

MEDIATION WITH DELEGATE AND REFEREES

Each Athenaeum also establishes an administrative support structure (Delegate), supported by reference teachers for teaching and scientific structures (designated on the basis of the organisation of each Department).

Referee teachers and Delegate are points of reference for all students with dyslexia.

Key tasks assigned to the Delegate:

- Function as an interface between the university system and students;
- Connection with the university services
- Personalised accompaniment in itinere
- The organisation and administrative management for the provision of services and the monitoring of their effectiveness

TUTORING

Students with dyslexia can be accompanied by a tutor who will act as:

- Accompanying them to lessons
- Note-taking
- Intermediation with teachers
- Study support
- Support in the use of compensatory tools
- Reservation of places in lessons; administrative and secretarial procedures

FORMS OF TUTORING

Specialised tutoring

- Professional educators trained in dyslexia
- Senior students such as PhD students, PhD students and postdoctoral fellows, properly trained and accompanied.

Peer tutoring

- Tutors from the same courses
- Tutors from related courses, accompanied and supervised.

PSYCHOLOGICAL COUNSELING SERVICE

- A listening and support space aimed at managing personal, relational and emotional problems, exam difficulties, anxiety, doubts about personal abilities linked to university study that may emerge during the academic course.
- Objectives: to support students in their overall personal growth by offering psychological help aimed at understanding the problem reported; clarifying the difficulties; activating the internal psychological resources needed to manage the difficulties and support change.

PEDAGOGICAL COUNSELING SERVICE

- Spaces for listening and helping relationships aimed at providing support in dealing with problems related to learning processes.
- Objectives: to offer support: in the acquisition and/or refinement of the study methodology; in the redefinition of one's study path; in the reading of specific needs in the direction of outlining a life project; in the identification of compensatory tools.

OUTGOING ORIENTATION

The Job Placement Service, which is present in all universities, accompanies undergraduates and graduates in the delicate phase of transition from University to the world of work, enabling them to acquire useful orientation tools for job placement.

The service also acts as an intermediary, facilitating the matching of job supply and demand and contact with companies.

SERVICE SATISFACTION QUESTIONNAIRE

In many Universities, students with dyslexia who use these services are asked to complete a satisfaction questionnaire at the end of the academic year.

This evaluation is an important opportunity for services to rethink and reshape their intervention.



*Another testimony: the
importance of the
relationship*



“The professor-student relationship in higher education can be one of mentorship, trust, and academia. In order to fight for this valuable relationship, we must adapt to the diverse population of higher education students, especially those with learning difficulties. A certain understanding of the ability and confidence of both parties is necessary to create an inclusive environment to thrive professor-student relationships. It is time for students to support with a plan and for professors to listen with a purpose. Changing the way we act will motivate the professor-student relationships that in turn will stimulate growth within higher education”.



WORKSHOP SESSION

**Thank you for
listening!**