

UNIVERSAL DESIGN FOR LEARNING: A TOOL FOR INCLUSION (EN-ABILITIES PROJECT)

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BRIEF INTRODUCTION

DIFFERENT REGULATIONS REQUIRE DEALING WITH DIVERSITY IN SOCIETY

- Convention on the rights of persons with disabilities
- Sustainable Development Goals
- European Strategy Disability
- Spanish Strategy Disability
- ...

THERE IS A FINE LINE BETWEEN WHETHER
DIVERSITY IS ONLY DISABILITY OR THAT IT IS
THE WAY TO ADDRESS THE RIGHTS OF ALL
PEOPLE

UNIVERSAL DESIGN FOR LEARNING IS A METHODOLOGY TO ATTEND TO THE DIVERSITY

SPECIFICALLY IN EDUCATION

but initially in architecture, design and telecommunications

Provide multiple means of Engagement →

Affective Networks
The "WHY" of learning



Provide multiple means of Representation →

Recognition Networks
The "WHAT" of learning



Provide multiple means of Action & Expression →

Strategic Networks
The "HOW" of learning



Access

Provide options for Recruiting Interest (7) →

- Optimize individual choice and autonomy (7.1) >
- Optimize relevance, value, and authenticity (7.2) >
- Minimize threats and distractions (7.3) >

Provide options for Perception (1) →

- Offer ways of customizing the display of information (1.1) >
- Offer alternatives for auditory information (1.2) >
- Offer alternatives for visual information (1.3) >

Provide options for Physical Action (4) →

- Vary the methods for response and navigation (4.1) >
- Optimize access to tools and assistive technologies (4.2) >

Build

Provide options for Sustaining Effort & Persistence (8) →

- Heighten salience of goals and objectives (8.1) >
- Vary demands and resources to optimize challenge (8.2) >
- Foster collaboration and community (8.3) >
- Increase mastery-oriented feedback (8.4) >

Provide options for Language & Symbols (2) →

- Clarify vocabulary and symbols (2.1) >
- Clarify syntax and structure (2.2) >
- Support decoding of text, mathematical notation, and symbols (2.3) >
- Promote understanding across languages (2.4) >
- Illustrate through multiple media (2.5) >

Provide options for Expression & Communication (5) →

- Use multiple media for communication (5.1) >
- Use multiple tools for construction and composition (5.2) >
- Build fluencies with graduated levels of support for practice and performance (5.3) >

Internalize

Provide options for Self Regulation (9) →

- Promote expectations and beliefs that optimize motivation (9.1) >
- Facilitate personal coping skills and strategies (9.2) >
- Develop self-assessment and reflection (9.3) >

Provide options for Comprehension (3) →

- Activate or supply background knowledge (3.1) >
- Highlight patterns, critical features, big ideas, and relationships (3.2) >
- Guide information processing and visualization (3.3) >
- Maximize transfer and generalization (3.4) >

Provide options for Executive Functions (6) →

- Guide appropriate goal-setting (6.1) >
- Support planning and strategy development (6.2) >
- Facilitate managing information and resources (6.3) >
- Enhance capacity for monitoring progress (6.4) >

Universal Design for Learning

Recognition Networks

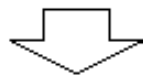
The "what" of learning



How we gather facts and categorize what we see, hear, and read. Identifying letters, words, or an author's style are recognition tasks.



Present information and content in different ways



**Principle #1:
Provide Multiple Means of
Representation**

Strategic Networks

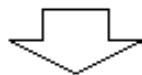
The "how" of learning



Planning and performing tasks. How we organize and express our ideas. Writing an essay or solving a math problem are strategic tasks.



Differentiate the ways that students can express what they know



**Principle #2:
Provide Multiple Means of
Action and Expression**

Affective Networks

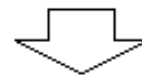
The "why" of learning



How learners get engaged and stay motivated. How they are challenged, excited, or interested. These are affective dimensions.



Stimulate interest and motivation for learning



**Principle #3:
Provide Multiple Means of
Engagement**

THIS MODEL HAS BEEN THE CENTRAL
AIM OF MY RESEARCH IN THE LAST
DECADE

DIFFERENT PROJECTS, ONE SAME OBJECTIVE:

IMPROVE THE QUALITY OF LEARNING FOR ALL STUDENTS AND, ESPECIALLY, FOR PEOPLE WITH SOME TYPE OF DISABILITY

SOME CURRENT RELEVANT PROJECTS

- Inclusive standards for the university
- Design for all in university degrees
- En-abilities project (Erasmus+ project)



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INCLUSIVE STANDARDS FOR THE UNIVERSITY

- A tool for universities to review their degree of inclusion
- A list of standards with their respective measurable indicators
- All aspects of university life
- For teachers, managers and students
- Coming soon a questionnaire to check its reliability

DESIGN FOR ALL IN UNIVERSITY DEGREES

Colección Accesibilidad ● Formación curricular de diseño para todos en informática y telecomunicaciones <i>Varios</i>	Colección Accesibilidad ● Formación curricular de diseño para todos en ingeniería de camino, canales y puertos <i>Varios</i>	Colección Accesibilidad ● Formación curricular de diseño para todos en ingeniería industrial <i>Dirección de accesibilidad</i>
Colección Accesibilidad ● Formación curricular en diseño para todas las personas -Administración y Dirección de Empresas ADE- <i>Fundación ONCE y CRUE</i>	Colección Accesibilidad ● Formación curricular en diseño para todas las personas en Ciencias <i>Políticas</i> <i>Varios</i>	Colección Accesibilidad ● Formación Curricular en Diseño para Todas las Personas en Derecho <i>Fundación ONCE y CRUE</i>
Colección Accesibilidad ● Formación curricular en diseño para todas las personas en educación <i>Varios</i>	Colección Accesibilidad ● Formación curricular en diseño para todas las personas en Enfermería <i>Varios</i>	Colección Accesibilidad ● Formación curricular en diseño para todas las personas en farmacia <i>Varios</i>
Colección Accesibilidad ● Formación Curricular en Diseño para Todas las Personas en Medicina <i>Fundación ONCE y CRUE</i>	Colección Accesibilidad ● Formación Curricular en Diseño para Todas las Personas en Pedagogía <i>Fundación ONCE y CRUE</i>	Accesibilidad ● Colección Accesibilidad ● Formación curricular en diseño para todas las personas en periodismo <i>Varios</i>

DESIGN FOR ALL IN UNIVERSITY DEGREES

- An initiative to teach in all university degrees content related to design for all and universal accessibility
- So far in the most representative degrees (architecture, computer science, medicine, education, psychology, occupational therapy, ...)
- The idea is to give tools to university professors so that they have resources to teach contents related to the theme

<http://www.crue.org/SitePages/Formacion-Curricular-Diseno-para-todas-las-personas.aspx>

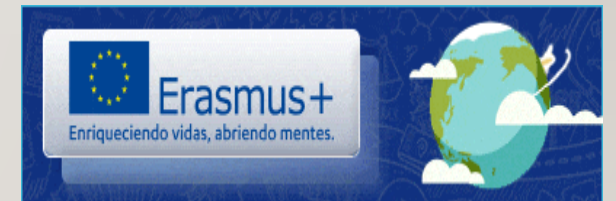
EN-ABILITIES PROJECT (ERASMUS+ PROJECT)

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- A project to teach a second language (English in this case) to students with some type of disability
- The main aim is to create a tool (technology) that attend with universal design principles so that it can be used by any person and, especially, by people with disabilities

<http://en-abilities.eu/>



EN-ABILITIES 2017-1-ES01-KA204-038155



EN-ABILITIES PROJECT (ERASMUS+ PROJECT)

- Several European countries participate (Spain, Portugal, Ireland, Serbia and Romania)
- We are working on the development of the application
- The final results will be:
 - A virtual learning tool in all the languages of the participating countries
 - A guide for educators on how to create English learning content following the principles of universal design for learning
 - A guide for technological developers on how to create content following the principles of universal design



PICTURES, DATA AND INFORMATION

<http://en-abilities.eu/>

<http://www.facebook.com/enabilities/>

[@EnAbilities](#)

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THANK YOU VERY MUCH FOR YOUR ATTENTION

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