

Accessibility notes

Education



Accessibility Chair of UPC
Architecture, design and technology for all

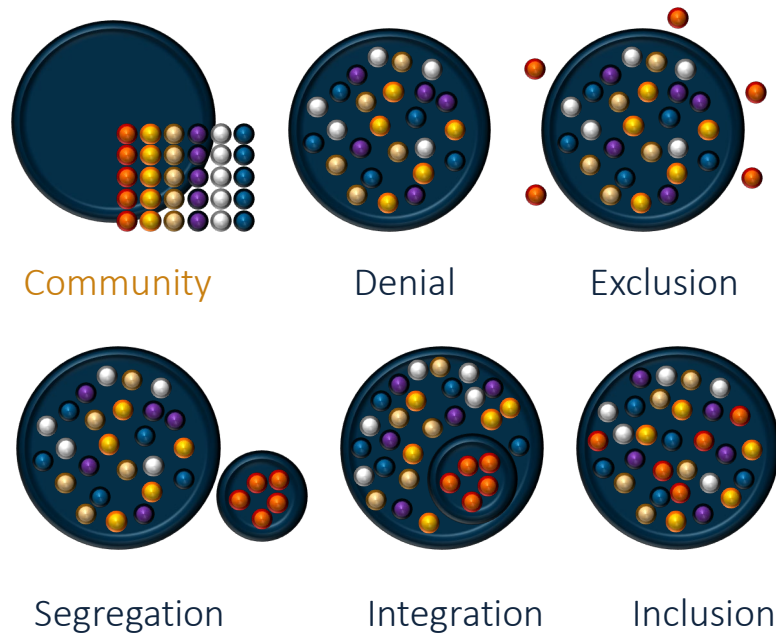
Dr. Daniel Guasch Murillo

December 2022



Concepts

Inclusive University



Inclusion

It is a process that guarantees the presence, participation and achievement of goals of all people in political, economic, cultural and social life, taking into account the needs, capacities and aspirations of each of them in equal rights, duties and opportunities.

Everyone counts, and they count equally!

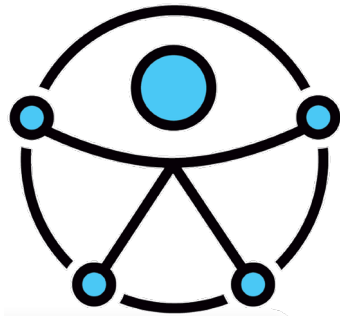
Inclusive University

Inclusion vs Integration

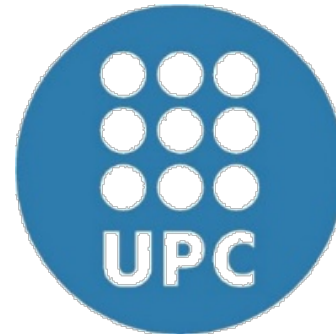
INTEGRATION	INCLUSION
NEE's Answers	Attention to Diversity
Singularity	Plurality
Equality	Equity
Focused on user's adaptation	Interaction User-Context
Psychomedical Model	Model biopsychosocial

Inclusive University

Needs, abilities and aspirations

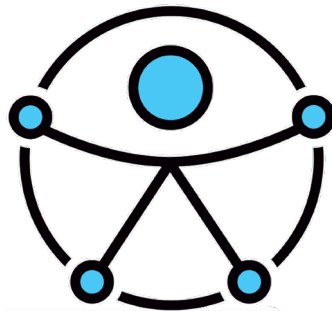
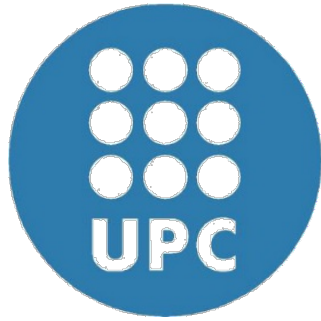


Physic...
Sensory...
Mental ...



access infrastructure
access to the contest
manage tasks

Inclusive University



Concept

An inclusive university is one that is conceived, designed, planned and developed so that all its members, regardless of their abilities, can participate in equal conditions in same.

Inclusive University

Inclusion

Academic inclusion: it is a process that guarantees the presence, participation, and achievement of milestones in the academic activities of the entire university community, taking into account the corresponding needs, capacities, and aspirations of each one with equal rights, duties, and opportunities.

Educational inclusion: it is a process that guarantees the presence, participation and achievement of goals for all students, taking into account the needs, capacities and aspirations of each one with equal rights, duties and opportunities.

All students count, and count equally!

Inclusive University

Community and Activity

University or academic community: it is the group of people formed by the students, the teaching and research staff and the administration and services staff of the university.

Academic activity: it is that action that includes the scope of teaching, study, research, development and innovation, the transfer and valuation of knowledge, and university extension; as well as the management and coordination actions that must be carried out to contribute to it.

Inclusive University

Need

Specific need for support: it is that lack that makes it difficult to include a person due to disability, high capacity, or learning or communication disorders.

Specific need for educational support: this is the lack that hinders the inclusion of the student due to disability, high capacity, or learning or communication disorders.

Inclusive University

Measure

Academic measure:: it is a set of actions and actions organized by the university aimed at achieving the objectives of academic activity.

Measure for academic care: it is a set of actions and actions organized by the university aimed at facilitating the inclusion of the university community in academic activities, responding to their specific support needs.

Measure for educational care: it is a set of actions and actions organized by the university aimed at facilitating the educational inclusion of students, responding to their specific needs for educational support.

Inclusive University

Resource

Academic resource: it is all that tool, material, document, application, web, device, etc. that allows to achieve the objective of the academic activity.

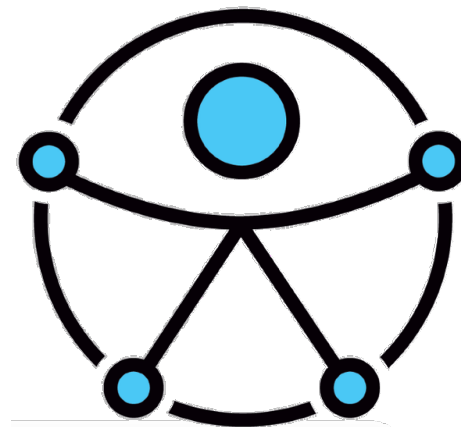
Resource for academic care: it is a set of personal, methodological, material support means -including technological ones- and the contextual and community aids that the university uses to ensure that the planned measures for academic care are effective and functional, and contribute to achieve the inclusion of the entire university community.

Resource for educational care: it is a resource for academic care focused on teaching.

Inclusive University

Limit case

Curricular adaptation: it is a set of measures and resources for educational care aimed at responding to a specific need for educational support for students.



Smart Inclusive University



Smart Inclusive
University

Concept

A Smart Inclusive University is a university built or expanded with intelligent mechanisms (especially taking advantage of Information and Communication Technologies, ICT), designed to allow the efficient management of resources and / or the improvement of the quality of life of their community.

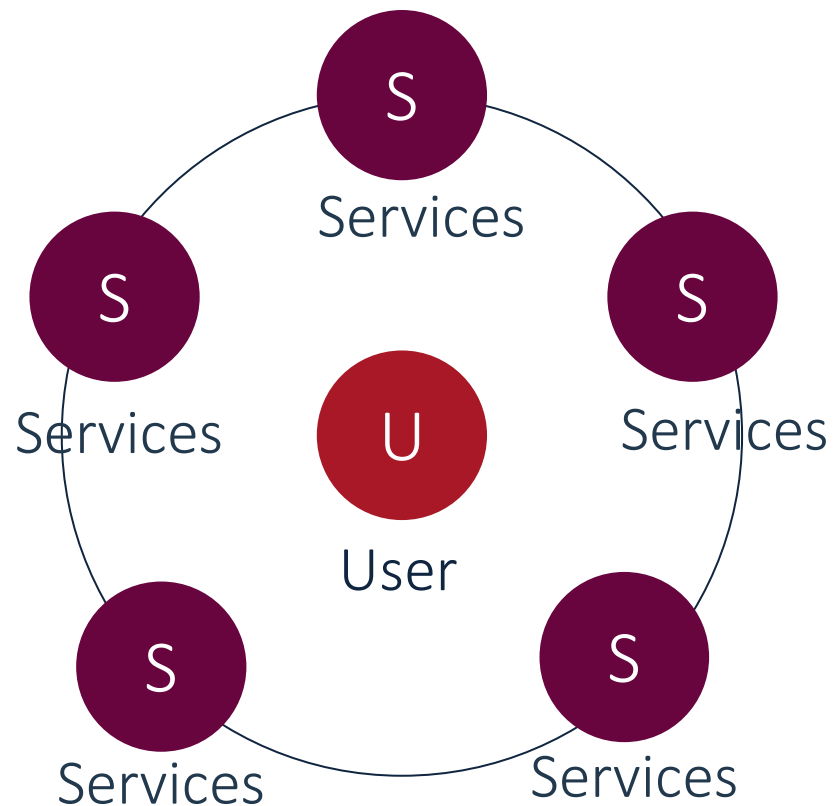
Smart Inclusive University

Put the services in the
pocket of the users...



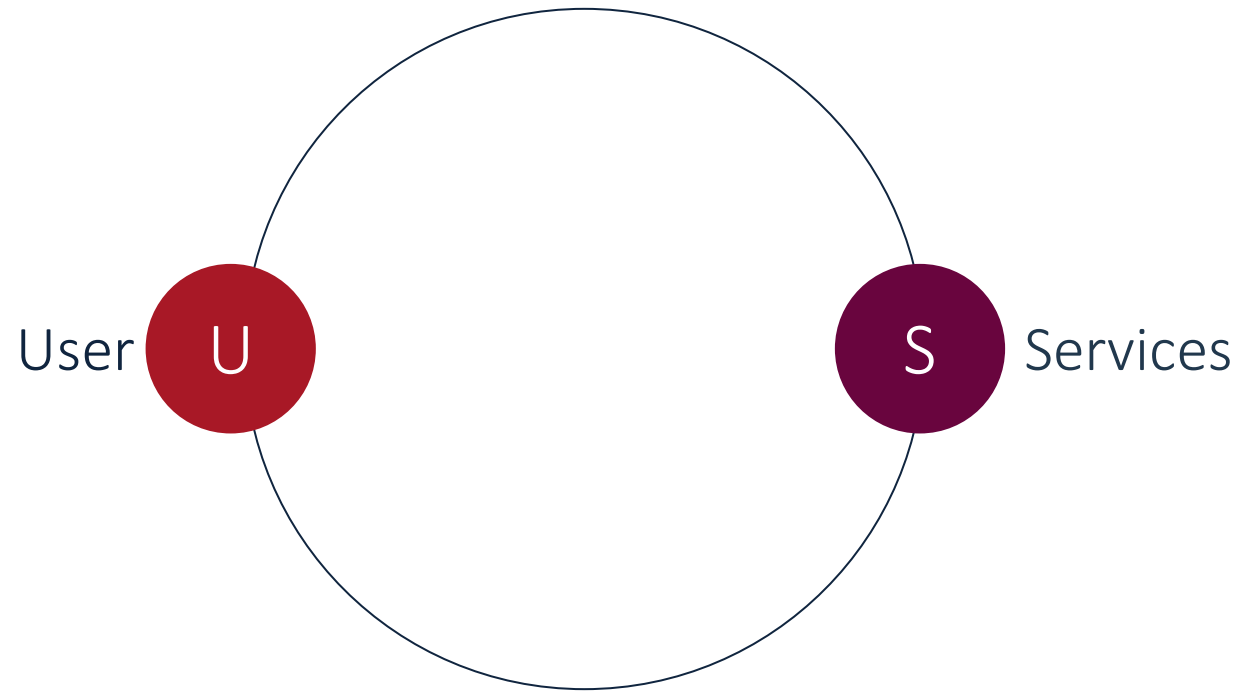
Smart Inclusive University

...and the user as the centre of the services, taking part in the process, from the conceptions to the implementation.



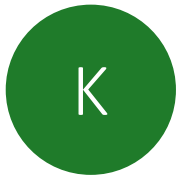
Smart Inclusive University

The user is not controlled by the system...



...customize the system with his needs.

The user



Knowledge



Skills



Attitudes

Key aspects of learning

- Knowledge (intelligence)
 - Simple concepts
 - Relationship between concepts
 - Generalization
 - Resolved of problems
- Skills (sensory and motor system)
 - Knowledge of the results
 - Repeated
 - Motivation
- Attitudes (behaviour)
 - Character
 - Responsibility

The user

Concentration

Focus voluntarily attention



Factors that influence:

- Have clear goals.
- Minimize other stimuli.
- Plan properly (notes, tasks, time).
- Have appropriated spaces and materials.

The user



Register



Retain



Rememorize

The Memory

1. Register.
 - Resources: abstract, diagrams, files, underline
 - Method: logically, orderly and understanding the message.
2. Retain.
 - Resources: attention and concentration (Isolation).
 - Method: Interest and motivation
3. Rememorize
 - Resources: Short and long term memory
 - Method: repetitions

The user

Information processing

Dyslexia: Confusion in the language

- In the alphabet
- In order
- In the orientation
- Specular



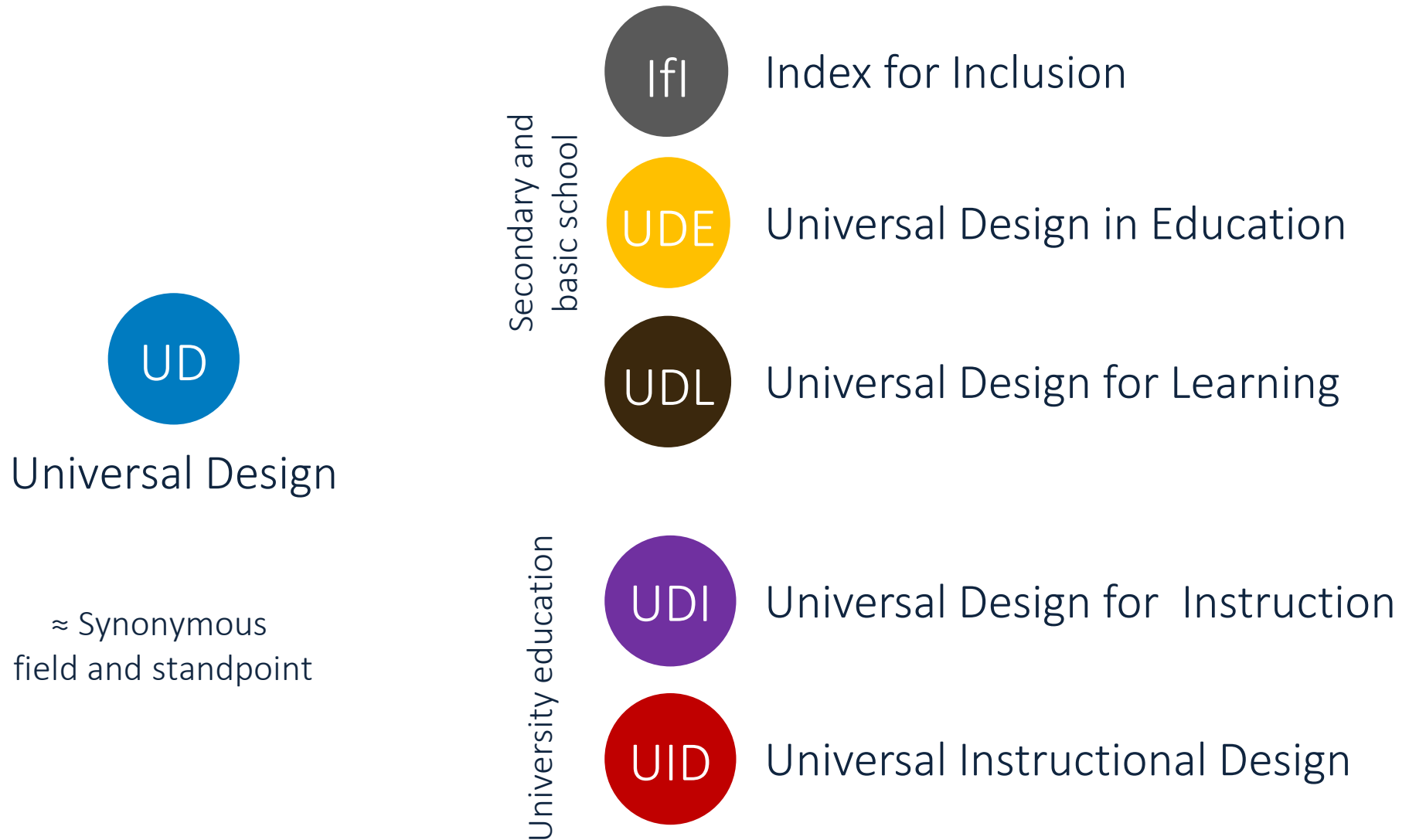
b d q p
-gth -ght 's -s

Nigth-Night
Mike's Mikes
day-bay-pay

P

Paradigms

Education strategies paradigms



Universal Design

Ronald Mace

Universal Design



Universal Design

Universal Design and design for all

Design of environments, products or services that ensures that, without requiring adaptations, all people can access, as far as possible, without excluding the use of support media, if needed, for particular groups of people with requirements specific accessibility.



≈ synonyms



Universal Design

Approach from the technique
Guidelines and design principles

Design for all

Approach from the disability
Philosophy and design strategy

Universal Design

Key Aspects of Universal Design (USA 1973)

1. Equality use
2. Flexibility in use
3. Simple and intuitive use
4. Information and perception
5. Error tolerance
6. Low effort
7. Space and dimensions for the space and use



Index for inclusion

Tony Booth &
Mel Ainscow

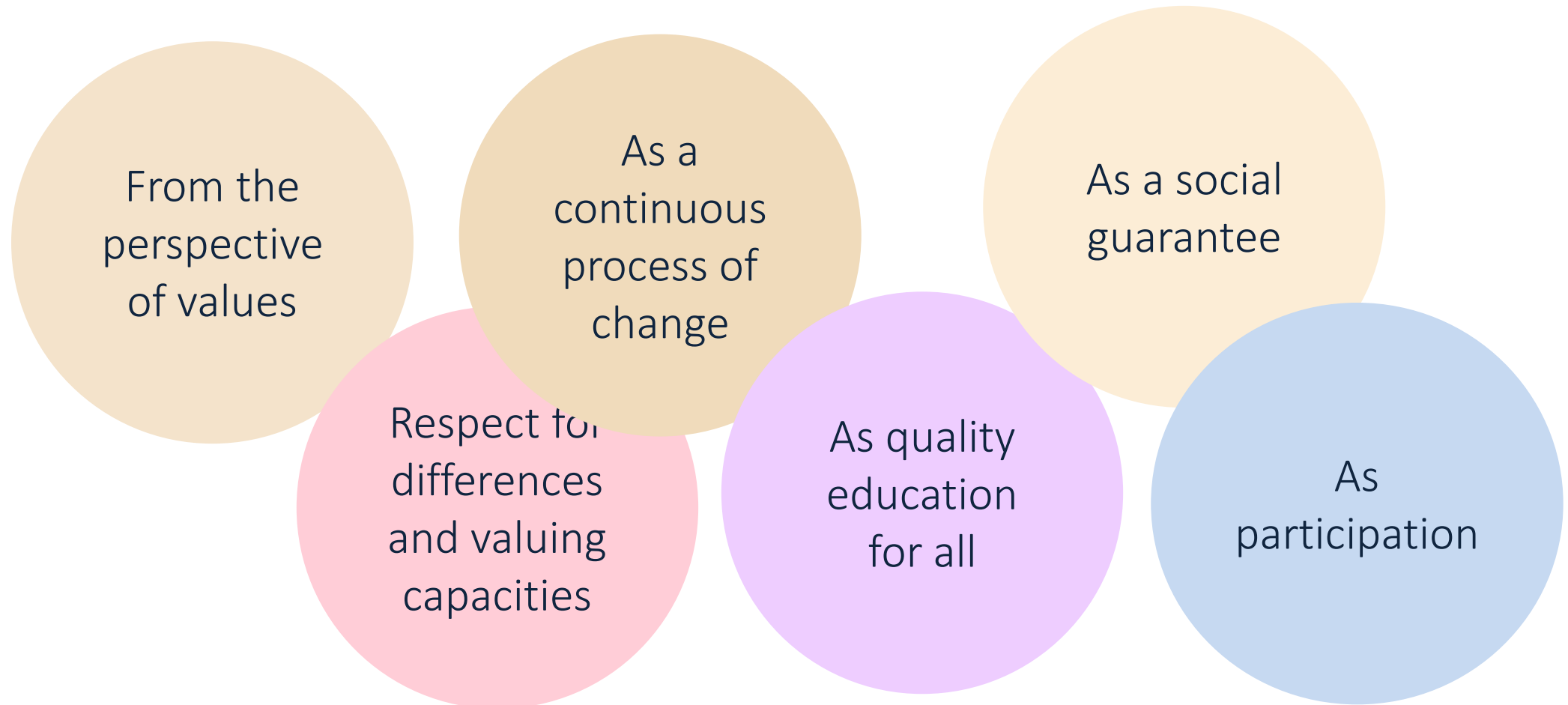


Index for inclusion



Index for inclusion

Paradigm of change



Index for inclusion

Key aspects of the index for inclusion (UK 2000)



Index for
inclusion

Inclusive cultures creation's

- Build community
- Establish inclusive values

Generation of inclusive policies

- Build a university for us
- Organize support for diversity

Development of inclusive practices

- Orchestrate learning
- Mobilize resources

Universal Design in Education

Frank Bowe

Universal Design in Education



Universal Design in Education

Key aspects of the Universal Design in Education (USA 2000)

Guarantee the application of the Universal design in:



*Universal Design
in Education*

1. The physical spaces
2. The information Technologies
3. Imparting the teachings
4. The services to the students

Universal Design for Learning

Anne Meyer &
David Rose



Universal Design for Learning

Universal Design for Learning

Key aspects of the Universal Design for Learning (USA 2002)

Provide multiple means of:



Universal Design
for Learning

1. Representation: provide the material in multiple formats and channels.
2. Action and Expression: To make student interaction more flexible with the material and evaluation processes.
3. Participation: motivate and maintain the interest of the students involving them in the decision-making and assignment of tasks.

Universal Design for Instruction

Sheryl Burgstahler

Universal Design of Instruction



Universal Design of Instruction

Key aspects of the Universal Design of Instruction (USA 2009)



Universal Design
of Instruction

Include 2 additional principles to the universal design:

1. Promote learning communities.
2. Take care of the instructional climate.

Define 3 levels of complexity:

1. Immediately.
2. With a little reflection and effort.
3. When the teaching plan is designed or updated.

Universal Design of Instruction

2 stages with specific objectives

Course's planning

1. Objectives and frame of reference
2. Studying plan
3. Evaluation
4. Materials
5. Virtual environment
6. Activities

Teaching the course

7. Orientation towards the student.
8. Organization and resources.
9. Previous Knowledge and learning styles.
10. Development of learning skills
11. Monitoring the evolution of learning.
12. Interaction in the classroom.

Universal Instructional Design

Richard Gorrie &
Jaellayna Palmer



Universal Instructional Design



Universal Instructional Design

Key aspects of the Universal Instructional Design (CA 2016)



Universal
Instructional
Design

1. Accessible and equitable materials and activities.
2. Flexibility in use, participation and presentation
3. Simplicity and coherence.
4. Clear and easily perceived information presented.
5. Learning-friendly environment.
6. Minimized unnecessary efforts and requirements.
7. The spaces where the learning takes place are adapted to both the users and the methodology.



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