Universal Design for Instruction

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Overview

- What is Universal Design for Instruction?
- How can UDI help us in our teaching?
- How diverse are our students?
- The 9 Principles of UDI
- Examples of UDI in practice
What is Universal Design for Instruction? (UDI)

- History and features
  - ADA Compliance
    - what’s good for the disabled is good for all
  - Design to serve wide range of students
  - Course design and delivery from a student’s point of view
How can we benefit from UDI?

- Increase awareness of diverse learners & student needs
- Clarify our essential goals
- Reduce course “adjustments” & individual accommodations
- Facilitate more student learning
Student Diversity

- Demographic diversity
  - Gender
  - Age
  - Culture, Race
  - Education
  - Economic class
  - Family
# Classroom diversity

![Classroom Diversity](image.png)

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Student Diversity

- Learning Styles
  - Auditory
  - Visual
  - Kinesthetic
  - Individual
  - Social
Student Diversity

Thinking Styles*

- Sequential: structure, organization
- Precise: details, facts, accuracy
- Technical: hands-on, practical
- Confluent: ideas, intuition, change

*Learning Connections Inventory
www.letmelearn.org
Classroom diversity
Student Diversity

- Academics
  - Background knowledge
  - Reading level
  - Writing skills
  - Mathematical thinking
  - Critical thinking
Student Diversity

- Disabilities
  - Visual
  - Hearing
  - Physical (mobility, dexterity)
  - Psychological
  - ADD / ADHD (focus, attention)
  - Learning Disabilities (reading, interpreting)
Classroom diversity
Principles of UDI

1. Equitable Use
2. Flexibility in Use
3. Simple & Intuitive
4. Perceptible
5. Tolerance for Error
6. Low Physical Effort
7. Appropriate Size and Space for Use
8. Learning Community
9. Inclusive Instructional Climate
#1 Equitable Use

- Instruction that is useful to and accessible by people with diverse abilities

**Example**

- Consider multiple modes of access to information: text, on-line, one-to-one
#2 Flexibility in Use

- Instruction designed to accommodate a wide range of abilities and preferences.

**Example**

- Use of varied strategies to engage students in learning: lecture, group work, presentations, etc.
#3 Simple & Intuitive

- Straightforward & predictable design, simple clear instructions.
- Eliminate unnecessary complexity

- Step by step instructions
- Clear goals & expectations
- Rubrics for assessment
#4 Perceptible Information

- Necessary information is communicated effectively, regardless of conditions or student’s sensory abilities

- Materials can be provided in multiple formats: paper, visual, oral, digital
#5 Tolerance for Error

Instructional methods anticipate variation in individual learning pace and skills, as well as common areas for error.

- Use practice tests to gauge student abilities.
- Use retests or test by competency level.
- Build in multiple stages of assessment.
#6 Low Physical Effort

Instruction designed to minimize physical effort in order to allow maximum attention to learning.

- Provide handouts or web links for class notes.
- Print size and spacing large enough to see.
#7 Adequate Size & Space

- Consideration of size and space for use regardless of students’ body size, mobility or communication needs.

- Consider lab setups, classroom arrangements, in-class workshops, activities, practicums, field trips, etc.
A Learning Community

- Instructional environment promotes interaction and communication among students and faculty
  - Small group assignments, in-class workshops
  - Student presentations
  - Out of class events, conferences, etc.
#9 Instructional Climate

- Designed to be welcoming and inclusive to all students. The same high expectations and requirements for all students.

  - Instructor & student discussing a project
  - Involving all students in class discussions & projects
Pause to Review

- Reflection Paper: 1 minute

- What is the most interesting or important thing you have learned so far?

- Write one question you have?

- Report to the group
Applying Universal Design to Teaching

- Identify Essential Goals
- Presenting Information
- Engaging Students in Learning
- Assessing Students & Processes
UDI Framework

Goals

Student Profile
- Abilities
- Knowledge
- Limitations
- Learning Styles
- Thinking Styles
- Multiple Intelligences

Design Elements
- Clarity
- Simplicity
- Equity
- Accessibility

Presentation
- Materials
- Delivery

Engagement

Syllabi design & layout

Visuals

Multiple formats

Assessment

Active Learning Practices

Peer / Group teaching

Multi-modal strategies

Learning Communities

Identifying goals

Feedback Mechanisms

Rubrics & other Assessment tools
Identifying Essential Goals

- What do you want your students to know?
- What do you want your students to do?
- How can you tell if they know and can do what you want?
Identify Essential Goals

- See Sample (handout)

- Practice with one of your courses
  - (5 minutes)
Presentation & Delivery of Material

- Clarity & Simplicity of Instructions
- Accessibility of Information
- Achievable Goals & Expectations
- Simple Models / Examples
- Precise Grading Standards
Engaging Students in Learning

- Create a Climate of Active Learning
- Plan Activities with Precise Goals
- Build in Student Input & Feedback
- Let Students Teach Students
Assessment

- Initial Assessment: What do they know and need to know?

- Feedback Loops: How are your students progressing?

- Testing: Can your students show what they know and can do?
The Teaching-Learning Cycle

Assess  Engage

Practice  Teach
Conclusion

- What did you learn?
- What do you need to do?
References


More resources & references at: