



# Quarterly Update

## Universal Design in Postsecondary Settings

One of the hot topics in postsecondary education is the use of universal design principles. Universal design principles are applied prior to the development of a product or environment and take into consideration the needs and characteristics of a wide range of potential users, including those who have disabilities. A classic example of universal design is the curb cut in a sidewalk.

In educational settings, universal design was initially applied to environment and building development. However, the principles of universal design can also be applied to teaching, learning, assessment, and curriculum development. The following are the principles and guidelines of universal design as they are applied in educational settings, as well as examples of the principles.

### Principle 1

**Equitable Use: The design is useful and marketable to people with diverse abilities.**

- Provide the same means of use for all users: identical whenever possible; equivalent when not
- Avoid segregating or stigmatizing any users
- Make provisions for privacy, security, and safety equally available to all users
- Make the design appealing to all users

Example: a website that is accessible to everyone, including students who are blind

### Principle 2

**Flexibility in Use: The design accommodates a wide range of individual preferences and abilities.**

- Provide choices in methods of use
- Accommodate right- or left-handed access and use
- Facilitate the user's accuracy and precision
- Provide adaptability to the user's pace

Example: a website that allows users to choose graphic or text versions

### Principle 3

**Simple and Intuitive Use: Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.**

- Eliminate unnecessary complexity
- Be consistent with user expectations and intuition
- Accommodate a wide range of literacy and language skills
- Arrange information consistent with its importance
- Provide effective prompting and feedback during and after task completion

Example: advance organizers for class lectures

*Continued on page 2*

#### Principle 4

**Perceptible Information: The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.**

- Use different modes (pictorial, verbal, tactile) for redundant presentation of essential information
- Maximize "legibility" of essential information
- Differentiate elements in ways that can be described (i.e., make it easy to give instructions of directions)
- Provide compatibility with a variety of techniques or devices used by people with sensory limitations

Example: a video shown during a course has captions

#### Principle 5

**Tolerance for Error: The design minimizes hazards and the adverse consequences of accidental or unintended actions.**

- Arrange elements to minimize hazards and errors: most used elements, most accessible; hazardous elements eliminated, isolated, or shielded
- Provide warnings of hazards and errors
- Provide fail-safe features
- Discourage unconscious action in tasks that require vigilance

Example: software applications that provide guidance when the user makes an inappropriate selection

#### Principle 6

**Low Physical Effort: The design can be used efficiently and comfortably and with a minimum of fatigue.**

- Allow user to maintain a neutral body position
- Use reasonable operating forces
- Minimize repetitive actions
- Minimize sustained physical effort

Example: word prediction software programs

#### Principle 7

**Size and Space for Approach and Use: Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.**

- Provide a clear line of sight to important elements for any seated or standing user
- Make reach to all components comfortable for any seated or standing user
- Accommodate variations in hand and grip size
- Provide adequate space for the use of assistive devices or personal assistance

Example: an instructor that faces the class rather than the whiteboard while speaking

Source:

Bowe, F. (2000). *Universal design in education: Teaching nontraditional students*. Westport, CT: Bergin & Garvey.

