Apply Universal Design to your course

Universal design is a collection of principles for making an experience inclusive for a range of users with consideration to age, ability, size and any other condition that causes them to be more or less successful interacting with the world. It isn't a strategy unique to designing for technology, education, or other particular disciplines. It is an approach that intentionally means to benefit the widest range individuals. It won't come as a surprise to hear that we will all be disabled in some capacity during our lifetime. We may not experience a congenital condition but we might experience a traumatic injury. Maybe we scratch a cornea or break an arm, both temporary ailments, yet each presents hurdles to accomplishing daily tasks. We will likely encounter even more challenging conditions as we age by experiencing restricted mobility and/or reduced motor control. For these reasons and so many more, intentional design for the greatest benefit of all individuals becomes a universal need.

Principles of Universal Design

There are seven principles of Universal Design, outlined by a working group at North Carolina State University in 1997. The principles are listed below, and expanded guidelines for each principle are available from the authors [1]. These principles are designed to be broad in their application and are meant to improve the experience of as many individuals as possible by advocating for the following:

1. Equitable use - The design is useful and marketable to people with diverse abilities.
2. Flexibility in use - The design accommodates a wide range of individual preferences and abilities.
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.
4. Perceptible information - The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.
5. Tolerance for error - The design minimizes hazards and the adverse consequences of accidental or unintended actions.
6. Low physical effort - The design can be used efficiently and comfortably and with a minimum of fatigue.
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.

Planning course resources to be accessible to a broad audience makes the course a better experience for everyone [2]. Where possible, give people choices with regard to how they access or interact with course materials. Take, for example, a video you have recorded for your course. Of course, you will ensure it is captioned. This not only benefits students who may be hard of hearing, but students viewing the video in an environment that makes hearing difficult—a student on a bus, in a gym, or a noisy home setting. Captions also provide an alternative for students viewing in an environment where audio may be disruptive—a parent putting a child to sleep, perhaps.

Textbooks and course-related reading materials are opportunities to expand access options for students as well. Where possible, select resources that can adapt to the comfort level of readers by offering the ability to manipulate text size, by providing an audiobook or recorded version of the text, or by selecting readings that can be easily read by text-to-speech readers. Many publishers are making these features available with their products. Adaptive reading options benefit a broad range of students by giving flexible control of the reading experience to the readers themselves.

Universal Design principles can improve student experience when incorporated into a course. Additionally, technologies can reasonably be incorporated into online course resources to help expand this impact on students. Thoughtful consideration of Universal Design principles during the course development process can improve the learning environment for all students.

References

1. Connell, B., Jones, M., Mace, R., Mueller, J., Mullick, A., Ostroff, E., Sanford, J., Steinfeld, E., Story, M., & Vanderheiden, G. (1997). The principles of universal design: Version 2.0. Raleigh, NC: The Center for Universal Design.

2. Al-Azaweil, A., Serenelli, F., & Lundqvist, K. (2016). Universal Design for Learning (UDL): A content analysis of peer reviewed journal papers from 2012 to 2015. Journal of the Scholarship of Teaching and Learning, 16(3), 39–56.

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