Universal Design for Learning

UDL is an approach to curriculum design that can help teachers customize curriculum to serve all learners, regardless of ability, disability, age, gender, or cultural and linguistic background. UDL provides a blueprint for designing strategies, materials, assessments, and tools to reach and teach students with diverse needs.

About UDL

Universal design for learning (UDL) is a set of principles for designing curriculum that provides all individuals with equal opportunities to learn. UDL is designed to serve *all* learners, regardless of ability, disability, age, gender, or cultural and linguistic background. UDL provides a blueprint for designing goals, methods, materials, and assessments to reach *all* students including those with diverse needs. Grounded in research of learner differences and effective instructional settings, UDL principles call for **varied and flexible ways** to

- Present or access information, concepts, and ideas (the "what" of learning),
- Plan and execute learning tasks (the "how" of learning), and
- Get engaged—and stay engaged—in learning (the "why" of learning)

UDL is different from other approaches to curriculum design in that educators begin the design process *expecting* the curriculum to be used by a diverse set of students with varying skills and abilities.

UDL is an approach to learning that addresses and redresses the primary barrier to learning: **inflexible, one-size-fits-all curricula** that raise unintentional barriers. Learners with disabilities are the most vulnerable to such barriers, but many students without disabilities also find that curricula are poorly designed to meet their learning needs. UDL helps meet the challenges of diversity by recommending the use of flexible instructional materials, techniques, and strategies that empower educators to meet students' diverse needs. A universally designed curriculum is shaped from the outset to meet the needs of the greatest number of users, making costly, time-consuming, and after-the-fact changes to the curriculum unnecessary.

The UDL framework is grounded in three principles

- **Multiple means of representation** – using a variety of methods to present information, provide a range of means to support
- **Multiple means of action and expression** – providing learners with alternative ways to act skillfully and demonstrate what they know
- **Multiple means of engagement** – tapping into learners' interests by offering choices of content and tools; motivating learners by offering adjustable levels of challenge.

Roots of UDL

The term Universal Design refers to a movement in architecture and product development that aims to make places and things more accessible to individuals with disabilities. Many adaptations for people with disabilities benefit a variety of users. For example, ramps and curb cuts make it easier for parents with baby strollers, elderly people, and delivery people to negotiate walkways and street. Similarly, closed captions on television and movies can be appreciated not only by the deaf and hard of hearing, but by people who can read them in noisy environments. They can also be used as support for listening comprehension by viewers learning the language. The concept that everyone benefits when designs incorporate the needs of every user has become known as *universal design.* UDL extends this concept to education by applying advances in the understanding of how the brain processes information to the design of curricula that accommodate diverse learning needs.

Under the UDL Umbrella

The good news is that UDL is not in conflict with other methods and practices. It actually incorporates and supports many current research-based approaches to teaching and learning, such as the following:

- Cooperative learning (group work),
- Differentiated instruction (see the TEAL Center Fact Sheet No. 5),
- Performance-based assessment,
- Project-based learning,
- Multisensory teaching,
- Theory of multiple intelligences, and
- Principles of student-centered learning (see the TEAL Center Fact Sheet No. 6).

How Can Students Benefit from UDL?

Adult students benefit from two major aspects of UDL: (1) its emphasis on flexible curriculum, and (2) the variety of instructional practices, materials, and learning activities. All students, including those learning English, older students, and those with disabilities appreciate the multifaceted ways content is presented, as well as options for demonstrating what they know. UDL helps educators meet the challenge of serving those with special needs while enhancing learning for all.

How Can Instructors Incorporate UDL?

Instructors may want to try the following strategies (Rose & Meyer, 2002):

- **Use multiple strategies to present content.** Enhance instruction through the use of case studies, music, role play, cooperative learning, hands-on activities, field trips, guest speakers, Web-based communications, and educational software. *Example: Students can role play important events in American history to give them a better understanding of the events and people involved.* Also, **offer a choice of learning contexts** by providing opportunities for individual, pair, and group work as well as distance learning, peer learning, and field work.

- **Use a variety of materials.** To present, illustrate, and reinforce new content, use materials such as online resources, videos, podcasts, PowerPoint presentations, realia, manipulatives, and e-books.

- **Provide cognitive supports.** Give students organizing clues; *for example: "I have explained the four main points, and now I am going to summarize them."* Present background information for

new concepts using pictures, artifacts, videos, and other materials that are not lecture-based. Scaffold student learning (provide temporary support to reduce the complexity of a task) by providing a course syllabus, outlines, summaries, study guides, and copies of PowerPoint slides.

- **Teach to a variety of learning styles.** Build movement into learning. Give instructions both orally and in writing to engage students auditorily and visually. Consider using large visual aids for slides, graphics, and charts.

- **Provide flexible opportunities for assessment.** Allow students to demonstrate their learning in multiple ways that include visual and oral presentation, rather than only written assessment.

How might this work in the adult education classroom? Because adult education classes do not always rely on textbooks only for curriculum material, but rather utilize realia and authentic materials, instructors can be at an advantage when trying to incorporate principles of UDL. A common example is the technique of using total physical response (TPR) exercises for adult English language learners. An example in the ABE classroom might be to teach weights and measurement using real objects and a variety of measurement tools. Show video clips to demonstrate measurement in various ways. Hands-on activities and demonstrations can help learners grasp the concept more readily than textbook readings and discussion. Have learners demonstrate their understanding through created visuals, oral presentations or demonstrations, maps and charts, or simulated tasks.

What's the Research?

According to the National Center on Universal Design for Learning at CAST, the research that supports UDL comes first from the research basis for the general principles of UDL, which come from cognitive learning science and neuroscience, and also derived from the work of Lev Vygotsky and Benjamin Bloom on understanding individual differences and the pedagogies required to address them. Research has been identified on specific practices for meeting the needs of individual differences as well as research on the specific applications of UDL. Links to the research can be found under Research at the [National Center on UDL Website](#).

Resources

Center for Applied Special Technology (CAST) (www.cast.org) offers extensive UDL resources and strategies on its Website.

Disabilities, Opportunities, Internetworking, and Technology (DO-IT) (http://www.washington.edu/doit) offers supports for incorporating UDL principles into the postsecondary setting and experiences of students with disabilities.

National Center for Accessible Media (http://ncam.wgbh.org) provides information and resources for expanding access to educational and media technologies for students with disabilities.

National Center on Universal Design for Learning (National UDL Center) (http://www.udlcenter.org/) supports the effective implementation of UDL by connecting stakeholders in the field and providing resources and information about UDL and UDL implementation.

NIMAS Development and Technical Assistance Centers (http://aim.cast.org) serve as a resource for information about the policies, practices, and technologies related to the National Instructional Materials Accessibility Standard (NIMAS).

Teaching Every Student (http://www.cast.org/teachingeverystudent) is a CAST Website that includes a multimedia version of the book, *Teaching Every Student in the Digital Age: Universal Design for Learning* (see reference below). This Website is designed for kindergarten through grade 12 teachers, but can be informative for adult education teachers.

UDL Guidelines (http://www.udlcenter.org/aboutudl/udlguidelines) from the National UDL Center provide a set of strategies for implementing UDL along with practical suggestions.

References

Rose, D. & Meyer, A. (2002). *Teaching every student in the digital age: Universal design for learning.* Alexandria, VA: Association for Supervision and Curriculum Development.

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