

Occupational Therapy and Universal Design for Learning



Occupational therapy practitioners work in a variety of educational settings to support the participation of children and youth in a wide range of academic and non-academic activities. The support that occupational therapy practitioners provide includes direct service to students, as well as training and consultation with parents, educators, administrators, and other school staff. Of the many tools that practitioners can use in this role, one of the most powerful and far reaching is knowledge of the principles and strategies of Universal Design for Learning (UDL).

UDL addresses access to learning and the curriculum for all students, not just those identified as having disabilities. Just like universal design in architecture, UDL applies the principles of equal access, flexibility, simplicity, perceptibility, and efficiency to both the educational environment and to the process of teaching and learning. Occupational therapy practitioners are uniquely trained and qualified to guide others in the application of UDL within educational settings. Their educational curriculum includes knowledge and skills related to task and activity analysis, environmental adaptations and modifications, and assistive technology.

What is Universal Design for Learning?



Federal education law defines UDL as:

...A research-based framework for designing curriculum—including goals, methods, materials, and assessments—that enables all individuals to gain knowledge, skills, and enthusiasm for learning. Universal design for learning provides curricular flexibility (in activities, in the ways information is presented, in the ways students respond or demonstrate knowledge, and in the ways students are engaged) to reduce barriers, provide appropriate supports and challenges, and maintain high achievement standards for all students, including those with disabilities. (Higher Education Opportunity Act, 2008)

Rose and Meyer (2002) developed the principles of UDL based on brain research that describes the process of learning as the interaction of three neuronal networks: the recognition, strategic, and affective networks. The recognition network helps identify patterns of sensory information, or the “what” of learning. The strategic network helps plan, execute, and monitor how we think and move, governing “how” we learn. Finally, the affective network determines the importance and meaning of what we’re learning and thus engages us, determining “why” we learn, or why not. Classroom learning generally consists of the presentation of information to students (the what), expression and demonstration of that information by students (the how), and engagement with the learning process (the why). UDL emphasizes the use of multiple and flexible ways of representing, expressing, and engaging with information so that all students can participate and find success in learning—drawing on their unique combination of strengths, weaknesses, and preferences.

What Does UDL Look Like and Why is it Important?

People today live and learn in a world that is filled with information from many sources—print materials, television, audio broadcasts, digital media, and an ever-growing array of technological devices. Many of these devices are readily available in classrooms and other learning environments. UDL promotes the use of both mainstream and specialized technology to provide students and educators with flexible options for accessing information.

For example, students who have difficulty reading printed text because of a visual impairment or reading disability might benefit from using the digital version of a novel or textbook on a computer or text reader that can read aloud. Those students just learning English or who have language processing disorders might find help in comprehending text by using embedded word definitions, concept explanations, foreign language translations, or animated coaching features (National Education Association [NEA] Policy Brief, 2008). In addition, students who have difficulty turning pages may use adapted switches to navigate through a digital text.

Likewise, students who have difficulty demonstrating their learning through writing or speaking can use a variety of computer tools, like spell- and grammar-checking, word prediction or speech-to-text software, and concept-mapping tools to respond to assignments. Both low- and high-tech strategies for goal-setting, planning, and implementing strategies for school work can help students who have difficulty staying on course and completing work.

There is a wide variety of evidence-based strategies for enlisting students' maximal engagement and participation in learning. These include scaffolding, which is explicitly tying new information to what



a student already knows; providing options for individual choice and autonomy; and giving students tools for managing frustration through the learning process. An excellent resource for more ideas is the Educator Checklist (National Center on Universal Design for Learning, 2009).

Living Life To Its Fullest™

O C C U P A T I O N A L T H E R A P Y

Occupational therapy enables people of all ages live life to its fullest by helping them to promote health, make lifestyle or environmental changes, and prevent—or live better with—injury, illness or disability. By looking at the whole picture—a client's psychological, physical, emotional, and social make-up—occupational therapy assists people to achieve their goals, function at the highest possible level, maintain or rebuild their independence and participate in the everyday activities of life.



What is the Occupational Therapy Practitioner’s Role in Implementing UDL?

An important role for school-based occupational therapy practitioners includes consultation to educators and administrators as well as direct service to students with disabilities. In addition, school-based occupational therapy practitioners support the general population of all children, with and without disabilities to, “perform important learning and school-related activities and to fulfill their role as students” (AOTA, 2006).

Occupational therapists are well-suited for identifying and recommending flexible options for teaching and learning activities at school to meet the diverse learning needs of all students. This includes the ability to observe and assess students’ performance skills and patterns, evaluate the influence of context and environment on performance, and analyze activity demands (Post, 2008).



Knowledgeable and experienced occupational therapy practitioners can provide training to educators, parents, other related services personnel, and students in the use of mainstream and assistive technologies. They can demonstrate how to use the flexible features of computer operating systems and applications to change the appearance of computer displays, the speed of response, features of keyboard and mouse inputs, and mode of visual or auditory output. They can recommend specialized

hardware and software for reading and writing, and help students access the range of academic and social networking opportunities. Occupational therapy practitioners can also identify features of the environment that support or interfere with students’ ability to benefit from classroom activities and recommend strategies to enhance participation.

Finally, occupational therapy practitioners are playing an active role in advocating for the inclusion of UDL language in national and state legislation, including the Higher Education Opportunity Act (P.L. 110-315) and the reauthorization of the No Child Left Behind Act. The American Occupational Therapy Association (AOTA) is one of more than 30 member organizations in the National Universal Design for Learning Task Force. In testimony before Congress about the importance of UDL in legislation, the National Universal Design for Learning Task Force (2007) said:

UDL was more than just UD applied to educational materials—that the emphasis on learning required considerations encompassing instructional goals, assessments, and methods as well as materials. Furthermore, the Task Force emphasized that more than just physical access to educational environments and materials were at stake—that fair and equal opportunities for learning are owed to those with learning disabilities, cognitive and intellectual challenges, English language learners, learners from disadvantaged backgrounds, and others who might otherwise be marginalized in the one-size-fits-all classroom. (National UDL Task Force, 2007)

Living Life To Its Fullest™
O C C U P A T I O N A L T H E R A P Y

Occupational therapy enables people of all ages live life to its fullest by helping them to promote health, make lifestyle or environmental changes, and prevent—or live better with—injury, illness or disability. By looking at the whole picture—a client’s psychological, physical, emotional, and social make-up—occupational therapy assists people to achieve their goals, function at the highest possible level, maintain or rebuild their independence and participate in the everyday activities of life.



Where Can I Learn More About UDL?

AOTA has several resources that describe the value of incorporating UDL principles into practitioners' work in schools:

Help All Students Achieve Greater Success in Academic Performance and Social Participation
www.aota.org/Consumers/Tips/Youth/Schools/FAQ.aspx

The National Center on Universal Design for Learning at (CAST)
www.udlcenter.org

The National Center for Learning Disabilities, Parent Advocacy Brief: A Parent's Guide to UDL
www.LD.org

The Council for Exceptional Children
www.cec.sped.org

The National Early Childhood Technical Assistance Center
www.nectac.org

The Wisconsin Assistive Technology Initiative
www.wati.org

Including Samuel—a Web site with inclusion resources
www.includingsamuel.com/resources/related-services-providers

Free Technology Toolkit for UDL in all Classrooms
udltechtoolkit.wikispaces.com

IDEA Partnership-Community of Practice on UDL
sharedwork.org/community/17124

References

American Occupational Therapy Association (2006). AOTA fact sheet: Occupational therapy in educational settings under the Individuals with Disabilities Education Act. Retrieved February 28, 2010, from www.aota.org/Consumers/WhatisOT/CY/Fact-Sheets/38507.aspx

American Occupational Therapy Association (2007, July 25). Testimony before Congress on the reauthorization of the No Child Left Behind Act. Retrieved February 28, 2010 from www.aota.org/Practitioners/Advocacy/Federal/Testimony/2007/40334.aspx

Higher Education Opportunity Act, Pub. L. No. 110-315, 122 Stat. 3078 (2008).

National Center on Universal Design for Learning (2009). Educator Checklist. Retrieved February 28, 2010 from www.udlcenter.org/sites/udlcenter.org/files/Guideline%20Ed%20Chklist%208_31_09.doc

National Education Association (2008). NEA policy brief: Universal Design for Learning (UDL): Making education accessible and engaging for all students. Retrieved March 4, 2010 from www.nea.org/assets/docs/PB_UDL.pdf

National UDL Task Force (2007). Advocacy. Retrieved March 2, 2010 from www.udlcenter.org/advocacy/referencestoUDL

Post, K. M. (2008, December). Universal Design for Learning: Supporting students' access to learning and the curriculum. *Technology Special Interest Section Quarterly*, 18, 1–4.

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

Developed for AOTA by Katherine M. Post, PhD, OTR/L, FAOTA.

Copyright © 2010 American Occupational Therapy Association. All rights reserved. This material may be printed and distributed without prior written consent.

Living Life To Its Fullest™
 O C C U P A T I O N A L T H E R A P Y

Occupational therapy enables people of all ages live life to its fullest by helping them to promote health, make lifestyle or environmental changes, and prevent—or live better with—injury, illness or disability. By looking at the whole picture—a client's psychological, physical, emotional, and social make-up—occupational therapy assists people to achieve their goals, function at the highest possible level, maintain or rebuild their independence and participate in the everyday activities of life.

