UDL Intersections

Universal Design for Learning and Differentiated Instruction

Frequent questions about the commonalities between "Differentiated Instruction" and "Universal Design for Learning" have prompted the examination of these two frameworks. The purpose of this brief is to describe the differences and highlight the intersections between them.

What is Differentiated Instruction?

Differentiated Instruction (DI) has at its core the goal of making learning accessible for all students. DI recognizes that learners differ in terms of interests, readiness, and learner profile (including factors such as culture, gender, and environmental preferences). In order to address these differences, teachers need to make instructional decisions based on formal and informal data related to the specific students in a classroom. Teachers can then select from a range of strategies to differentiate content, processes, products, or the learning environment in order to help each student acquire essential concepts, principles, and skills.

What is Universal Design for Learning?

Universal Design for Learning (UDL) is based on the evidence from neuroscience that no two brains learn in the same way; learner variability is the rule. The UDL Guidelines (see the National Center on UDL: http://www.udlcenter.org/) provide a structure to support the design of curriculum to address this neurological variability. By providing multiple means of engagement, representation, and action and expression in the curriculum from the beginning, all students can become "expert learners," which includes being resourceful, strategic, and purposeful toward a goal.

Intersections

Both the UDL and DI frameworks recognize that each learner is different (DI) or variable (UDL). Setting clear goals and matching assessment to instruction, especially through ongoing, formative assessment is essential for students to reach goals. In addition, both DI and UDL provide flexibility in terms of how students work to reach learning goals.

DI emphasizes the central role of the teacher in customizing instruction at the classroom level in order to identify and support the interests, learning needs, and characteristics of specific students or groups of students. This responsive learning process can be applied to learning tasks and/or assessments to engage students and to provide appropriate and authentic learning and assessment opportunities for each student. Students often have choice and flexibility in assignments and in how they demonstrate what they have learned.

UDL provides an overarching framework for designing a flexible curriculum for the broadest range of students by building flexibility into learning tools and experiences from the beginning, thus making customization at the point of instruction feasible. The UDL Guidelines provide suggestions, based on research in the learning sciences, for how to design curriculum effectively with flexible options that can support a student becoming an "expert learner" (resourceful, strategic, and purposeful) in any context. Options are available for all students as they work to reach the same, high-level goal.

To meet the needs of all students, both UDL and DI recognize that cornerstones to learning address key aspects: UDL—engagement, representation, and strategies for action and expression; DI—readiness, interests, and learner profile. It is essential to have some flexibility in the materials and methods offered to students in support of their goals. However, UDL emphasizes proactive design of the environment and curricula while DI emphasizes responding to individual needs. Together, they can provide a powerful combination of strategies to meet the needs of all students as they work to reach the goals of instruction successfully.

UDL Intersections

Universal Design for Learning and Universal Design

Sometimes we hear the terms "Universal Design" and "Universal Design for Learning" used interchangeably. Although these two terms are related, they have different meanings. The purpose of this brief is to define the differences between these two terms and highlight their intersections.

What is Universal Design?

According to the Assistive Technology Act of 1998, the Individuals with Disabilities Education Act (IDEA) and the Higher Education Opportunity Act (HEOA):

The term "universal design" means a concept or *philosophy for designing and delivering products and services that are usable by people with the widest possible range of functional capabilities, which include products and services that are directly accessible (without requiring assistive technologies) and products and services that are interoperable with assistive technologies*[1].

UD guides the development of products and built environments offering access to the greatest number of individuals from the outset without requiring costly or clumsy retrofitting. UD is well established in architecture – ramps and automatic doors are some examples. In education, the goals of a UD approach are to increase accessibility for all and minimize the need for customized instructional materials and classroom accommodations.

What is Universal Design for Learning?

According to the Higher Education Opportunity Act (HEOA):

The term "universal design for learning" means a scientifically valid framework for guiding educational practice that--(A) provides flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge and skills, and in the ways students are engaged; and (B) reduces barriers in instruction, provides appropriate accommodations, supports, and challenges, and maintains high achievement expectations for all students, including students with disabilities and students who are limited English proficient (20 U.S.C. § 1003(24)).

UDL is a framework for teaching and learning that includes proactive planning of curricula (goals, assessments, methods, and materials) and takes into account the variability of all learners.

Based on research from the learning sciences (e.g., education, psychology, neuroscience), UDL's three principles guide educators to (1) offer flexible options to engage learners in the learning environment, (2) present information in multiple ways, and (3) provide multiple ways that students can demonstrate what they have learned.

Intersections

UDL echoes UD, and both frameworks address *physical* accessibility in education by offering options for perception.

However, UDL also emphasizes additional aspects of learning, such as how learners process information and build deeper comprehension of content, utilize their executive functioning, organizational skills and progress monitoring abilities, engage in the learning environment, and define self-assessment and self-reflection strategies.

Applying the UDL principles to lesson and curriculum design, educators make decisions about a range of methods, materials, and media needed to scaffold and support learning for all learners. In addition, UDL helps to build student independence and self-regulation through a gradual release of scaffolds and supports.

[1] See 20 U.S.C. §1401(35)(IDEA); 20 U.S.C. §1003(23)(HEOA), and Assistive Technology Act of 1998, as amended, 29 U.S.C. §3002)

UDL Intersections

Universal Design for Learning and Digital Technology

Many teachers are unsure as to whether they can actually implement Universal Design for Learning (UDL) because they have limited access to technology or limited fluency in its use. Also, some educators wonder whether technology is central to UDL or whether UDL is a pedagogical framework that goes beyond technology. In other words, is UDL about technology, or about teaching? The purpose of this brief is to describe the relationship between UDL and digital technology and to highlight their intersections.

What do we mean by digital technology?

The term 'digital' technology usually invokes visions of computers - which is certainly one mode for accessing digital context. Digital media also include mobile devices, such as cell phones, gaming technology, social media, and data analytics. Once text is digital, it can be displayed in several ways. Content can be displayed using a variety of media - onscreen, or via speech, graphic images, video, animation, simulations, or any combinations of these. Digital text can also be translated and transformed (e.g., text-to-speech, speech-to-text, text-to-American Sign Language (ASL), text-to-Braille).

What is Universal Design for Learning?

Universal Design for Learning (UDL) is based on the evidence from neuroscience that no two brains learn in the same way; learner variability is the rule. The UDL Guidelines (see the National Center on UDL: http://udlcenter.org/) provide a structure to support the design of curriculum to address this neurological variability. By providing multiple means of representation, action and expression, and engagement in the curriculum from the beginning, all students can become *expert learners* which includes being resourceful, strategic, and purposeful towards a goal. UDL is about pedagogy.

Intersections

From the beginning, UDL has been associated with digital technology for good reason: the power and flexibility of digital technology greatly enhances the ability to individualize and customize the learning experience. Digital technologies allow for variability among learners and learning environments and encourage flexibility. An obvious advantage of digital technologies is that the presentation of content can be altered in a variety of ways to suit individual needs and interests (e.g., changes in type face, font size, font color, sound volume, presentation rate). Also, the difficulty of information can be altered: images can be turned on or off and main ideas can be highlighted. The networked nature of digital media adds further flexibility, including inserting hyperlinks as supports (e.g., multimedia explanations, maps, interactive images, and encyclopedias) and communicating with peers and mentors via email or web blogs.

According to Rose, Gavel and Domings (2010), digital technology is an important aspect in the implementation and optimization of UDL. Nevertheless, the UDL principles and guidelines may be applied to successfully teach *all* students without digital technologies. Using traditional non-digital media requires teachers to create or assemble a large assortment of materials and options. However, the core components of the curriculum—its goals, assessments, media, materials, and teaching methods—remain essentially as they always have been. The teacher's challenge is to offer sufficient options. In summary, digital technology is not the goal of UDL; it is merely one of its means.

Based on: Rose, D., Gavel, J, & Domings, Y. (2010). *UDL Unplugged: The Role of Technology in UDL.* Retrieved 10-28-2014 from http://www.udlcenter.org/resource_library/articles/udlunplugged

UDL Intersections

Universal Design for Learning and Special Education

Sometimes it is assumed that "Universal Design for Learning" is a concept that applies exclusively to the field of special education. The purpose of this brief is to describe the differences between these two terms and to highlight their intersections.

What is Special Education?

By federal definition, special education is "Specially designed instruction, at no cost to parents, to meet the unique needs of a child with a disability, including instruction conducted in the classrooms, homes, hospitals, institutions, and in other settings; to ensure that all children with disabilities have … special education and related services designed to meet their unique needs and prepare them for further education, employment, and independent living." [Individuals with Disabilities Education Act 2004 Part B Regulations, §300.1(a)] There are 14 specific categories included in IDEA under the lead definition of "child with a disability."

What is Universal Design for Learning?

Universal Design for Learning (UDL) is based on the evidence from neuroscience that no two brains learn in the same way; learner variability is the rule. The UDL Guidelines (see the National Center on UDL: http://udlcenter.org/) provide a structure to support the design of curriculum to address this neurological variability. By providing multiple means of representation, action and expression, and engagement in the curriculum from the beginning, all students can become *expert learners* which includes being resourceful, strategic, and purposeful towards a goal. Implementing UDL strategies benefits all students.

Intersections

Over the 40 years that special education has been implemented in our country's schools, the education of students with disabilities has continued to shift from access to the building to access to the curriculum to accountability for student learning. With these shifts in philosophy there has been a physical shift to more students with disabilities being educated in classrooms with typical peers. Along with students who are identified under other federal and state programs (students who are English language learners, at-risk of school failure, gifted and talented, of differing cultural and linguistic backgrounds, etc.) students with disabilities are adding to the diversity of the general education classroom.

Historically, the provision of special education services has been a wait to fail model with retrofitting of appropriate accommodations and modifications after repeated unsuccessful attempts at demonstrating learning. More recently, the practice of responsiveness to intervention emphasizes the early identification of student strength and needs in order to provide appropriate accommodations and learning strategies prior to referring a student for special education evaluation and services. With this shift to early intervention thinking, both special education and UDL are about creating opportunities for students to be met at their current skill levels. UDL, which emphasizes the variability of learners, provides the overarching framework for thinking about the proactive design of curricular materials and strategies for the broadest range of students, including students with identified disabilities under IDEA.