

Chapter 8

The Use of Universal Design for Learning (UDL) to Enhance the Learning of Students of All Abilities

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ABSTRACT

Universal design for learning (UDL) is a framework for planning and delivering instruction in a way that meets the needs of the diversity of learners in the classroom. The main component of UDL is addressing learner variability. UDL helps educators better understand the brain as a complex organ that is composed of interconnected networks of information that is influenced by genetics and environmental factors. It supports educators in creating lessons that facilitate efficiency of information storage and retrieval for the diverse learners within the classroom. UDL principles can be utilized for instruction in areas of literacy, mathematics, science, and social studies; and to meet the individual needs of all students with a variety of diverse instructional needs including students in general education, students in early childhood programs, students who are English learners, students who are gifted, and students with disabilities.

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INTRODUCTION

Universal Design for Learning (UDL) is a framework for planning and delivering instruction in a way that meets the needs of the diversity of learners in the classroom (CAST, 2018). The genesis of UDL is found in the architectural designs that were created in response to the Americans with Disabilities Act (ADA) that requires access for persons with disabilities in public spaces. This design concept is why we now have access supports such as ramps in the interior and exterior of buildings, cut out curbs on sidewalks and closed captioning on television.

As this new approach was being implemented the discovery was made that this design framework not only benefitted those with disabilities, but it also benefitted those that are non-disabled as well. For instance, the cut out on curbs as well as ramps inside and outside of buildings are helpful not only to persons in wheelchairs, but also for bicycles and strollers as well. Closed captioning works well for persons working out in gyms or for persons watching television late at night with a low volume. There are many advantages that go beyond just accommodating persons with disabilities.

UDL is based on current brain research that provides information about how the brain processes information in the learning process (CAST, 2018). There are 3 brain networks that are outlined in the framework, and each are addressed differently within the teaching process. The first network is the Affective Network that addresses the “why” of learning. This network is aligned with the Multiple Means of Engagement within the UDL framework. The second network that is addressed is the Strategic Network that addresses the “how” of learning. This network is aligned with the Multiple Means of Action and Expression. The third and final network that is addressed is the Recognition Network that addresses the “what” of learning. This network is aligned with the Multiple Means of Representation within the UDL framework.

UDL strategies address each of the unique networks within a given teaching/learning experience (CAST, 2018). For instance, it is important to begin the learning process by activating prior knowledge to help students make a connection to the lesson. It is the “hook”, if you will, of the lesson to help foster engagement. Within the UDL Planning framework the 3 different networks are addressed at appropriate times within a lesson to create a strong teaching/learning experience for a diversity of learners within the classroom.

The main component of UDL is addressing learner variability (CAST, 2018). Much of the work is based on the principle that no two brains operate identically. It helps educators better understand the brain as a complex organ that is composed of interconnected networks of information that is influenced by genetics and environmental factors. It supports educators in creating lessons that facilitate efficiency of information storage and retrieval for the diverse learners within the classroom.

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