Chapter 3
Implementing Universal Design for Learning in the Virtual Learning Environment

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ABSTRACT

This chapter presents an overview of learner variability and addresses how the Universal Design for Learning framework can be applied to meet the diverse needs of all students in a virtual learning environment. Emphasis is placed on how educational professionals at multiple levels can apply their current knowledge to design and implement effective and universally designed instruction through multiple means of engagement, representation, and action and expression. It also addresses the importance of providing specialized instruction, including how educators can provide federally protected educational supports in virtual learning environments. The authors provide directions for further examination of virtual learning and the implications of this instructional delivery model for meeting the needs of all learners in light of recent trends.

DOI: 10.4018/978-1-7998-7222-1.ch003

INTRODUCTION

Sam sits outside a local restaurant and watches people on a bustling city street. He notices a wheelchair user navigating a curb cut (the ramp-like transition from sidewalk to street) to cross the busy street and make his way back to the sidewalk again. Not too far behind, a family traverses the same curb cut. The parents push a stroller, a child rides a scooter, and another child rides a bicycle. All of them transition seamlessly using the same curb cut. Separately, an older couple uses their phone to take a picture of the menu. They pinch and zoom the image to enlarge the text. At another table teenagers use the same built-in functionality to view an item before purchasing it online. The use of real-life ubiquitous accommodations, accessed by many for varying purposes, happen constantly in spontaneous ways within our communities. Common curb cuts, the ability to zoom, and other technological features aim to universally remove barriers and increase accessibility for all people. While these features were originally developed to address the needs of specific individuals, in practicality, these features are beneficial to a wide variety of people in ways sometimes never imagined.

As many veteran educators will attest, the concept of the "average" learner is a myth, despite traditionally held ideas that equip the majority of educators to teach to the *middle* of the classroom. Thankfully, there has been a growing recognition of learner variability within the classroom, and a professional shift to view each learner's unique abilities, interests, and experiences, as assets (Meyer et al., 2014). The development of the Universal Design for Learning (UDL) guidelines has led to changes in how educators design instruction to pro-actively address learner variability through incorporated flexible accommodations, supports, and challenges. Providing options that enable all learners to fully participate enables the entire class to benefit and grow in the same way the benefits from curb cuts are experienced by far more than wheelchair users. These opportunities provide responsive options to students typically excluded from traditional instructional design, including students with disabilities (SWD), English learners (ELs), and students identified as gifted and talented. Just as with curb cuts, by proactively designing for the needs of those who have been previously excluded, educators can provide all students with rich, meaningful learning experiences.

Digital technologies offer rich and varied ways to create flexible instructional design options. The use of instructional technologies alone, however, does not guarantee accessible and equitable instructional design. Educators instructing in virtual learning environments (VLEs), or supporting, monitoring, or researching those who do, benefit from instructional frameworks that support their design thinking, such as the UDL guidelines, as they seek to meet the needs of all learners. According to the International Society for Technology in Education (ISTE, 2021), VLEs are learning experiences provided using a digital platform. These experiences may be self-directed or led by an instructor and can be synchronous, asynchronous, or a combination of both. This chapter aims to equip educators of varying experience levels with practical considerations for implementing instruction within VLEs to address learner variability; establish a foundational understanding for leaders and policymakers on the implications and considerations of virtual learning for students of varying abilities and needs; and provide recommendations for future research and practice.