Universal Design for Learning in Postsecondary Education: Foundations, New Directions, and Resources

The most consistent finding to emerge from the interdisciplinary study of learning is that when it comes to how individuals learn, natural variability is the rule, not the exception (Universal Design for Learning: Theory and Practice by Meyer, Rose, & Gordon (CAST, Inc. 2014)). What is perhaps most important to understand about learner variability is not that it exists, but that it is predictable. Because some variability is systematic, faculty and curriculum specialists in institutions of higher education can design for it in advance. Universal Design for Learning is an educational framework that guides the design of learning goals, materials, methods, and assessments as well as policies surrounding these curricular elements, with a diversity of learners in mind (Meyer & Rose, 1998; Rose & Meyer, 2002).

Pioneered at CAST, UDL is built on two premises. First, that addressing students at the margins creates improvements for all students. UDL emerges from research that focuses on the needs of particularly vulnerable or underachieving students — historically, those with disabilities — for whom specialized instructional techniques have been shown to be effective and sometimes critical. What the UDL framework throws into relief is the repeated finding that what works for these specific groups also tends to be effective throughout the entire learner population (Meyer & Rose, 2005).

The second premise of UDL is that barriers to learning occur in the interaction with curriculum — they are not inherent solely in the capacities of the learner. UDL ensures that the curriculum is designed to account for systematic human variability without lowering expectations.

Three principles underlie the framework of UDL:

1. providing multiple means of representation,
2. providing multiple means of expression and action, and
3. providing multiple means of engagement (Rose & Meyer, 2002).

A key benefit of UDL is that it enables educators in higher education to plan and create learning environments that are conducive to learning for all students, without needing to identify specific students for whom to target particular interventions on an as-needed basis. The pedagogical, neuroscientific, and practical underpinnings of Universal Design for Learning (UDL) are now well documented in the literature on teaching and learning (Rose & Meyer 2002; Rose, Meyer and Hitchcock, 2005; Rose and Meyer 2006, Meyer, Rose, & Gordon 2014). Further, the professional literature is replete with examples of how the UDL principles have been successfully applied in higher education as an approach to faculty professional development (Behling & Hart, 2008; Dar & Jones, 2008; Hall & Stahl, 2006; Scott & McGuire, 2008; Spencer & Romero, 2008; Yager, 2008). For example, in a study by Shaw, faculty trained in the UDL principles made changes to their courses, including restructuring syllabi to provide a greater range in the types of work that contribute to course grades, presenting information in multiple ways, checking student understanding of concepts more frequently, arranging for course materials to be previewed before class and reviewed afterward by students, and supplementing in-class discussions with online options (Shaw, 2011).

In the USA, there has been significant progress in the adoption of UDL practices at the postsecondary level. The California State College System (Project ENACT), Colorado State University, Boston College, The University of Vermont, The North Carolina State University System's College STAR program—a collaborative program on three campuses: East Carolina University (ECU), the University of North Carolina at Greensboro (UNCG), and Appalachian State University have implemented program-based UDL initiatives with promising results. For example, students participating in UNCG's intensive program (designed for students with AD/HD) received 0 disciplinary referrals during the 2012-2013 academic year, while students in ECU's intensive program (targeted for students with identified learning disabilities) achieved a 90% retention rate, higher than the university's overall retention rate (College STAR, Year 2 Project-Wide Program Evaluation 2012-2013).

Both of the authors of this paper have been teachers for a course at Harvard's Graduate School of Education. In that course there has been considerable evolution in the actual application of the principles of UDL. In the last two years, the focus has been primarily on reducing the amount of time spent in reading and lectures and devoting that time instead to highly collaborative "laboratory" projects that engage students in "doing" UDL rather than reading or hearing about it. We have learned, however, that students vary widely in their capacity to work productively in teams or to learn from them. As a result, like every other aspect of the course, we have had to learn to do two things:

1. to provide options and alternatives for participation by students with very different skills and abilities, and
2. to provide scaffolds to support students (of all types) in working productively on teams. Those scaffolds supported teams in working together more productively, and most importantly, they resulted in much better final projects (For discussion of this work, see Gravel et al, 2015, in press, Rose et al. 2008).

What is now needed is to increase awareness more broadly among institutions of higher education of the importance of UDL strategies for broadening participation and aiding retention of all students. This will require more comprehensive training, resources, and technical assistance to support institutions of higher education as they begin to implement UDL. Towards this end, CAST developed UDL On Campus, a collection of resources that help educators and administrators in institutions of higher education improve instruction through Universal Design for Learning (UDL).

The online resource is provided at no charge to users at http://udloncampus.cast.org. UDL On Campus offers educators tutorials and practical resources in UDL theory and practice across five categories:

1. Assessment,
2. Selecting Media and Technology,
3. Improving Institutional Policies and Practices,
4. Planning Your Course, and
5. Teaching Approaches.

Within each category users can find resources that demonstrate specific ways to address learner variability in an effort to improve learning opportunities, retention, and outcomes at the higher education level.

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