Universal design for learning: What occupational therapy can contribute

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As an occupational therapist supporting disabled students[1] in higher education, I frequently came across barriers that impacted on students' ability to succeed in university. I recognised that many issues were due to an inaccessible educational environment rather than impairment, that modifications for diverse learners supported all students and how my occupational therapy perspective could contribute to affecting institutional change through promoting and explaining universal design for learning.

This article presents a perspective on how occupational therapy could contribute to universal design for learning (UDL), a specific educational application of universal design. It first explains the basic principles of UDL and then explores the contribution that occupational therapy could make to this area and how we could all benefit from it.

Universal design for learning

Universal design for learning is an approach to education broadly based on universal design; its key features relate to creating an environment where all learners have equal access to the curriculum, regardless of learning style or needs (Rose & Meyer, 2006). As with universal design more broadly, UDL is underpinned by a social model of disability, in which the problem is understood to be in the environment — inaccessible curricula (rather than individual learners) are described as "disabled" (Center for Applied Special Technology [CAST], 2011).

According to CAST (2011), the key principles of UDL include:
- Providing multiple means of representation, for example, providing information in text, video, audio, diagrams, etc. Ideally, the same information should be provided in different formats.
- Providing multiple means of action and expression, for example, enabling students to express their understanding through different media such as text, speech, practice etc.
- Providing multiple means of engagement, for example, providing a mix of structure and spontaneous activities, including working with peers or alone, working through active experimentation and working through text.

As with universal design, UDL is based on the understanding that design for an "average" is inherently problematic, as those with differences are more significantly disadvantaged (Rose & Meyer, 2006); the "average" does not suit many learners. Also, as with universal design, a UDL approach needs to be adopted from the outset; retrofitting or providing adjustments or accommodations for a poorly designed curriculum is inadequate and inelegant, in the same way that retrofitting a ramp to an inaccessible building is far inferior to designing an accessible building at the outset.

Unlike traditional curricula that focus on knowledge and skill acquisition, UDL aims to develop "expert learners" who are: a) resourceful, able to apply learning to prior knowledge and able to select appropriate strategies to assimilate new learning; b) strategic and goal-directed, able to plan and evaluate their own learning and c) are purposeful, motivated and can sustain the effort required for success (CAST, 2011). These attributes mirror what we aim to achieve with occupational therapy clients: the ability to be resourceful, to solve problems and select strategies to resolve performance issues and the motivation to engage in occupations.

There is some evidence to support UDL as an approach to education (Higbee, 2003), but this is currently limited. While the evidence base is still developing, there is much anecdotal evidence to support UDL. The field of occupational therapy, with its own specific knowledge base and professional values, has much to offer.

How occupational therapy could enhance universal design for learning

As occupational therapists focus on enabling clients to engage in daily occupations, activities and tasks (Townsend & Polatajko, 2007), occupational therapy could enhance universal design for learning. This is not only because of expertise in environmental design and adaptation but also our understanding of the importance of occupation (everyday activities that are meaningful for individuals) in daily life (Wilcock, 2003).

As a disability officer, I met students who were struggling with aspects of university; some due to the inaccessibility of classrooms and reading material, others due to their inability to engage with social aspects of university, such as making friends and working in groups. UDL recognises the need to make the learner's environment accessible and to promote different modes of engagement, but it does not specifically discuss the importance of engagement in a range of occupations around

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[1] "Disabled students" is used in respect of the social model of disability, where it is respected that people are disabled by the environment.

learning. As occupational therapists, we recognise that students' social occupations may be as important as those in the classroom. Our philosophical, theoretical and scientific base informs us that people are occupational beings (Wilcock, 2003), and engaging in occupations can be meaningful and help to form our internalized roles (Kielhofner, 2008) and identities, including that of student. Thus, if one aspect of a student's life is affected, this may have consequences for other aspects.

One student with whom I worked loved debating. She confided that without debating, she may not have continued with her humanities course; it required a lot of independent reading and she felt isolated. Despite severe fatigue, it was important to her to invest energy in debating, which was poorly understood by her lecturers. UDL would approach this by providing a wider variety of options of ways for students to learn. Debating texts, rather than solely reading, could form part of the curriculum, so the student could feel socially engaged within the course. In occupational therapy, we appreciate that balance and variety are important, thus adding this knowledge base to UDL could strengthen its argument for multiple means of engagement.

In traditional curricula, disabled students may be accommodated, (for example by being provided with a specific guided tour of the campus or a different examination venue) but this does not necessarily mean that they are *included* (Higbee, 2002). One student with whom I worked said she didn't share the class experience of an exam because she was in a different building, and another felt isolated by being accommodated on a separate campus tour. As occupational therapists, we acknowledge the meaning derived from occupations and the multifaceted nature of occupation (Polatajko, 1994), so, for example, we understand that an inherent part of a campus tour is the social contact, rather than it just being about learning where the toilets are. We could contribute to UDL by providing our expertise, knowledge and theory about the complexity of occupation to support the aim to *include* rather than *accommodate*.

The concept of an expert student in UDL neatly fits with client-centred occupational therapy philosophy (e.g., Sumsion, 2006). The expert student concept focuses on the process of learning rather than on the end-product of knowledge, neatly paralleled by many occupational therapy interventions—the process of engaging in occupation is considered important, rather than, or as well as, the end product of being able to do a task or activity (occupational performance).

Universal design for learning: Benefits for occupational therapy

Just as occupational therapy can contribute to UDL, UDL could also enhance occupational therapy. The most obvious application of UDL would be to consider our own curricula and find ways to build them around the principles of UDL. This would support diverse learners within our own profession and could enhance the educational experiences of our own students.

As UDL principles fit so well with occupational therapy's philosophy, adopting these approaches more fully in our education practice could enable us to "practice what we preach." Providing information in a variety of formats, enabling students to express their knowledge in different ways and providing different engagement methods could enable students to value difference intrinsically. Our clients, too, have different learning preferences; therefore, as occupational therapists, we need to adapt our style to include a diverse client group. Supporting our own students in this way would confirm our commitment to client-centred (and student-centred) practice.

Basing curricula on UDL principles, particularly the goal of producing expert learners, fits with the aim to develop critical, resourceful, motivated occupational therapists who can adapt to change and strategically manage their own learning. This is likely to also be relevant to other university programs. Occupational therapists may be in a position to support a range of colleagues to apply UDL principles to designing and developing education programs.

My experiences as a disabled student, occupational therapist working with disabled students and occupational therapy lecturer lead me to conclude, first, that there is a very important place for an inclusive curriculum (based on universal design for learning) and also that we, occupational therapists, are in an excellent position to promote this approach.

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