

## Implementing Universal Design in Learning Centers

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### ***Abstract***

*This chapter is reprinted verbatim from Curriculum Transformation and Disability: Implementing Universal Design in Higher Education, and was originally published in 2003. This chapter defines the mission, functions, and goals of college and university learning centers and then describes how the implementation of Universal Design facilitates the achievement of these goals for all students. The authors also address testing services commonly provided by learning centers for students with disabilities. The chapter concludes with a discussion of physical accessibility issues.*

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The primary mission of every postsecondary institution is to educate students effectively. Early in the history of American higher education, it became clear that effective learning also meant developing support services to meet the academic needs of students (Enright, 1994). College and university learning centers have become home to a wide variety of services that enhance learning among all students at the institution. In addition, learning centers often play a role in the delivery of services for students who require developmental support, including underprepared students and students with disabilities.

### **Mission, Functions, and Goals**

The development of the learning center on any given campus is grounded in the history and mission of that institution. When a college or university provides access for students who have developmental needs, retention of those students often requires programmatic support beyond the curriculum. However, whether open admissions or highly selective, institutions have an obligation to engage in activities that promote the intellectual development of all students. Levels of student preparedness are always relative; at any given institution there will be students who are more talented in some disciplines than in others, and students who have developed skills and habits that are more conducive to learning than others. The nature of the support needed, the funding available, and the political position of the institution all contribute to decision-making regarding learning center functions.

Changing demographics have also influenced the nature of academic supports provided in postsecondary education. After World War II, for example, the GI Bill enabled many veterans to go to college. A large number of these students were not adequately prepared

for the rigors of college work. As a result, learning assistance programs and learning centers became institutionalized to support veterans in their academic pursuits (Johnson & Carpenter, 2000; Martha Maxwell, 2000). Similarly, in the 1960s the initiation of many access-oriented programs, such as financial aid, brought another wave of diverse students to college for the first time. Meanwhile, the changing face of the work place required more adults to return to school following gaps in their education. The resulting diversity in skills and experiences created an explosion of learning centers and support services designed to meet the broad range of academic needs of students. Based on that historical change in higher education, a majority of learning centers evolved during the 1970s (Devirian et al., 1975; Enright, 1994). The emergence of learning centers has been reflective of the changes in diversity and access on a campus.

Often the origin of a center defines its function, at least initially. Prager (1991) cites three models that guide most centers: (a) those that emerged from the disciplines, such as math labs and writing centers; (b) those that grew as extensions of the library; and (c) those that were created as “stand-alone” programs, with no or limited connections to other institutional functions. Centers can provide a wide range of activities that include assessment; counseling-based services; academic assistance in mathematics, writing, reading, and the development of learning skills and strategies; and technological support. In addition to traditional models such as peer and professional tutoring, service delivery systems can include programs like Supplemental Instruction (SI) and Video-based Supplemental Instruction (Arendale, 1998; Peled & Kim, 1995) and paired, linked, or adjunct courses (Blinn & Sisco, 1996; Bullock, Madden, & Harter, 1987; Dimon, 1981; Resnick, 1993) that attach instruction in strategies such as note taking and preparing for exams to courses considered “high risk” (i.e., with low retention rates or high failure rates). Many learning centers provide services such as workshops on topics like time management and test anxiety, computer tutorials in subjects like mathematics and foreign languages, or the opportunity to participate in learning communities or collaborative study groups. Finally, centers may be the home to developmental or basic skills curricula.

Services may be provided in person, online (Johnson & Carpenter, 2000), or via videotape or cable-access television (Thomas & Higbee, 1998). Learning centers were initially born to meet the needs of students who have the capacity to succeed academically, but for a variety of reasons may require additional resources or different approaches to learning. For this reason, centers often have become the place on campus to experiment and utilize nontraditional or cutting edge delivery systems to assist students, looking to technology and instructional innovations to provide complementary ways to enhance learning (Foelsche, 1999).

Goals for learning centers may include promoting academic success, enhancing student learning, improving retention and graduation rates, and providing services for students with disabilities (Kay & Sullivan, 1978; Prager, 1991). Some learning centers are designed to support all students, and some are targeted to meet the specific needs of particular populations. Students with disabilities have long been considered one of the primary

target groups for learning centers (Casazza & Silverman, 1996). Some centers evolved initially to provide exclusive services to this population (Enright, 1994). It is imperative for all learning center administrators to maintain sensitivity and openness to universal support for students. Students with hidden disabilities may come to the center to seek help, sometimes without sharing information about their particular disability or needs (Eaton & Wyland, 1996). Planning for such situations will help maintain the confidentiality of the student and create a center that is truly accessible to all students. Universal Design (UD) provides a means by which the curriculum and educational tasks can be adapted and mastered more effectively by all students, particularly those with undisclosed invisible disabilities, whose learning needs might otherwise not be met.

The philosophy of Universal Instructional Design (UID) is to design curricula in such a way so that accommodation is built into the program. In the learning center, materials and delivery systems can also include Universal Design guidelines and assumptions. The myriad programs and services that may be made available by learning centers demonstrate Universal Design because they provide multiple means of facilitating the acquisition of knowledge. However, they also represent numerous challenges for planning and implementation in a manner that is accessible to all students.

### **Services for All Students**

It is not difficult to adapt some of the individualized services provided by learning centers for students with virtually any disability. One-to-one tutoring, for example, may require arranging for a sign language interpreter or real time captioning for a student with a hearing impairment, but if tutoring appointments are scheduled in advance for all students, making these arrangements should not pose overwhelming obstacles. Similarly, computer-assisted tutorials may require the provision of assistive technology, but it is necessary to equip some computer stations in every learning center with the technology to make all programs and services accessible to any student. If students are able to sign up for computer time in advance, students with disabilities will not have to wait for a computer terminal. On the other hand, it is important to note that providing assistive technology does not guarantee accessibility. For example, a screen reader will read across lines of columns in a table, rather than down the column. The final section of this book provides further information on creating accessible tables. When possible, computer tutorials and other programs can be placed on the server, providing accessibility to all students, whether working within the learning center or from a distance.

As indicated in the next section of this book, the implementation of Universal Instructional Design, whether within the classroom curriculum or in learning center programs like workshops, Supplemental Instruction, and paired, linked, or adjunct courses, will also require advance planning. Workshop facilitators, SI leaders, and instructors must consider how to include all learners by presenting information in a variety of ways. For example, material provided on overhead transparencies or via power point slides should also be presented orally, provided on handouts in both regular size and enlarged print, and made available on disks or to download from a web site. Workshops, SI sessions, and courses can

be videotaped so that students can view the tapes in the learning center, check them out to view at home, or if possible, watch on public cable access television. Videotapes should include closed captioning.

Video services can be beneficial for all students who work, have family responsibilities that make it difficult to attend at the times that programs and services are made available, or are not able to attend due to illness. In addition, providing courses, SI lessons, or tutorial sessions on tape and TV through the learning center can make it possible for students who have disabilities like asthma or cystic fibrosis, or require surgery during the academic term, to maintain their academic responsibilities (Thomas & Higbee, 1998). Many students also benefit from being able to pause or stop videotaped lectures in order to take more accurate notes or to ensure that they really understand the material.

Online services can also benefit all students. However, for some students with disabilities, synchronous discussions can become exclusive rather than inclusive. Just as in collaborative study sessions occurring in the learning center it may be necessary to allow time for “translation” so that students with auditory impairments can participate fully when assisted by a sign language interpreter or real time captioning interpreter, synchronous online chats can disadvantage some students with visual impairments, mobility impairments, and reading-oriented learning disabilities, to name a few. These factors must be taken into consideration when creating online programs and services. Thinking inclusively in the planning stages makes all services more accessible to all students.

All web information for students, including learning center information sites as well as other online programmatic functions, must be given careful consideration for accessibility. Often, visually attractive or high tech websites can be problematic for students with disabilities. Therefore, it is important that websites be made with minimal graphic additions, or offer a “text only” version of the site that can be downloaded or modified for students with visual impairments. *Bobby Worldwide*, for example, provides guidelines and evaluative tools for the accessibility of websites (Center for Applied Special Technology, 1999). Text versions of sites also provide an excellent way of developing simple handouts for all students to use.

Finally, learning center administrators, expecting that students with disabilities will come to the center, need to offer training and increase sensitivity of staff through professional development activities. When learning center administrators anticipate needs early, staff can be prepared to change delivery systems or to direct students to different resources for assistance.

### **Disability Services Housed Within Learning Centers**

Some learning centers provide services specifically for students with disabilities, while others physically house the institution’s disability services for students. Under the latter model, especially on smaller campuses, the learning center may be the only location that provides computers with assistive technology. In this situation, students with disabilities

may be less segregated than on campuses with separate facilities for disability services. However, especially at larger institutions, if assistive technology is not made available in computer labs throughout the campus, it is imperative that the learning center be centrally located and make the same hardware and software provided around campus accessible to all students. It is not appropriate, for example, for a student with a disability to be required to complete statistics assignments in the learning center when all other students are doing the assignment in the statistics lab.

### **Testing Services**

On some campuses the learning center is the site designated for proctoring tests when extended time or other modifications are indicated as part of a student's individualized plan for accommodation. Students with Attention Deficit Hyperactivity Disorder, learning disabilities, acquired brain injuries, or some psychological disabilities may require a private testing room in order to reduce distractions. Students with anxiety disorders may require a testing environment that eliminates sources of stress, such as other students leaving when they finish early.

It would be wonderful to be able to provide extended time and a more conducive testing environment for all students who could benefit, including students who do not have a documented disability but do suffer from test anxiety. In many classrooms, time limits are placed on quizzes and tests because of the length of standard class periods, not because the time factor is an essential component of performance of the task. The ability of learning centers to provide testing with extended time for all students depends on the availability of space and staff.

Learning centers may also provide other types of testing services for students with disabilities, such as reading a test aloud for a student with a vision impairment, or transcribing audio taped oral responses for a student with a mobility impairment. Or the learning center might provide assistive technology such as a screen reader or voice recognition software to enable students with disabilities to "read" or to respond orally to exams. At the present time the cost of this software makes it prohibitive to expect learning centers to provide these technologies for all students. But as further technological advances occur, and costs diminish, it is not unreasonable to anticipate that learning centers will be able to make more choices for demonstrating knowledge available to all students if faculty members are willing to be flexible in their approaches. New forms of technology may make it easier for faculty to test the use of higher order thinking skills among students.

### **Physical Accessibility**

Innovations in computer technology, as discussed in the final section of this book, address many issues of accessibility for students with disabilities who want to make full use of learning centers. Other considerations include how spaces are designed, flexibility in furniture arrangements, and adjustable workstations.

### ***Welcoming Reception Areas***

Reception areas should be easily accessible and welcoming. Reception counters should be 28 to 34 inches tall, so that students seated in wheelchairs have ready access to staff and to printed materials provided on the counter. Signage should be provided in contrasting colors in raised text and Braille at appropriate heights. Trained personnel should be ready to provide information about programs, make referrals, schedule appointments, and direct students to appropriate services and staff. Descriptions of services, staff directories, and handouts should be available in multiple formats, including large type, Braille, and on audiotape and computer disk.

### ***Use of Space***

Learning centers should include both individual and group rooms for tutoring and study skills counseling, if provided, as well as for testing. Entrances, corridors, rooms, pathways, and computer stations must be sufficiently large to accommodate wheel chairs and scooters. Adjustable height workstations are more comfortable for people of various sizes as well as for students with mobility impairments. Study carrels provide a level of privacy that can be appreciated by any student. Circular tables for study groups facilitate communication while also allowing flexible seating arrangements.

### ***Lighting***

Windows that allow for natural lighting can make learning spaces more welcoming if other factors are taken into consideration. Installation of windows that filter ultraviolet light will benefit all students, but are particularly important to students with disabilities like lupus and students who suffer from migraine headaches. In addition to providing window blinds to reduce glare on computer screens at different times of day, computer monitors should be equipped with glare guard. It is preferable that overhead lighting not be fluorescent, but when there is no choice, it is important to properly maintain fixtures and replace bulbs regularly. Flickering bulbs can trigger seizures. Adjustable individual work station lighting can also be beneficial for all students. Task lamps should be equipped with “soft” or “low light” bulbs.

### ***Regulating Noise***

Policies enacted to regulate noise levels (e.g., policies related to use of cell phones and pagers) benefit all students, not just those with hearing impairments. In addition, wall, ceiling, and flooring materials should be selected to minimize noise. Study carrels and partitions should be sound-absorbent. Separate spaces should be created for group activities so that the natural flow of conversation does not disrupt the concentration of individuals working on computer tutorials or studying alone. Implementing these practices to promote Universal Design creates a more welcoming and efficient learning environment for all students.

## **Conclusion**

With forethought, learning centers are an ideal place to implement the principles of Universal Design and Universal Instructional Design. On many campuses learning centers

play a vital role in enhancing student retention. It is imperative that learning centers be universally accessible.

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