

Online Learning as a Form of Accommodation

Terence Cavanaugh

University of North Florida, USA

INTRODUCTION

An estimated three billion people, representing approximately half of the planet's population, are in some way affected by disabilities, which includes an estimated 150 million from the United States of America (Half the Planet, 2001). According to the *Twenty-Third Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act* (U.S. Department of Education, 2002a), concerning students with special needs between the ages of three and 21, the U.S. and its outlying areas are currently serving educationally more than 6,272,000 students classified as having a disability. The inclusion model, in which a special needs student participates in the "regular" classroom, has become the current classroom education standard. Today's special needs students have increasing impacts on the general education teacher as, during the past 10 years, the percentage of students with disabilities served in schools and classes with their non-disabled peers has gradually grown to over 90% in 1998 (U.S. Department of Education, 2000b). Because of the large and increasing number of special needs students, assistive educational technology is growing in importance. The population of postsecondary students with disabilities has increased over the past two decades, and currently there are approximately one million persons in postsecondary institutions who are classified as having some form of disability (U.S. Department of Education, 2000b). In 1994, approximately 45% of the adult population who reported having a disability had either attended some college or had completed a bachelor's degree or higher, as compared to only 29% in 1986 (National Center for Educational Statistics, 1999a).

BACKGROUND

Changes in the Population of Schools

While the makeup of the student population (K-20) has changed, because more students have been classified as having a disability and are now included in the general educational population, so too have the possibilities of the educational setting changed. For the 1999-2000 school year, the number of U.S. students with disabilities served was 588,300 preschool children and 5,683,707 students ages 6 through 21, representing an increase of 2.6% over the previous year

(U.S. Department of Education, 2002a). Instructors now have on hand instructional tools that include forms of interactive telecommunication, such as the Internet and two-way video communication, as options for the delivery of instruction. While schools may not have been planning, designing, and creating distance learning courses and programs to meet the needs of students with disabilities, many students' needs were met through such a delivery system nonetheless. Electronic learning in and of itself is a form of instructional accommodation. Additionally, a range of assistive technology can support the student in the distance learning environment. The online class can be an assistive technology tool that students can use who would otherwise not be able to participate in a classroom for physical, health, or other reasons.

The number of students with disabilities is growing in the online education environment. A 1999 Canadian study of students with disabilities attending community colleges and universities found that an overwhelming majority of respondents (95%) indicated that they used a computer in their education situation, to the most noted reason for using the Internet was for doing research (Fichten, Asuncion, Barile, Fossey & De Simone, 2000). Thompson's (1998) summarizing report states that approximately 5% of the undergraduates at Open University of the United Kingdom have disabilities, with their population increasing at a rate of approximately 10% per year. The growth is ascribed to the convenience of home study and the ability of technology to overcome barriers to learning for students with disabilities. According to the U.S. Department of Education's (2002a) National Postsecondary Student Aid Study of 1999-2000, more than 8% of all undergraduates took at least one distance learning course, and 9.9% of those students identified themselves as having some form of disability.

Accommodations or Modifications Needed for Disabled Access

There is a difference between accommodations and modifications for students with special needs. Accommodations are considered to be provisions made in how a student accesses and/or demonstrates learning. The term accommodations focuses on changes in the instruction, or how students are expected to learn, along with changes in methods of assessment that demonstrate or document what has been learned. The use of an accommodation does not change the educational goals, standards, or objectives, the instructional level,

Online Learning as a Form of Accommodation

or the content, and provides the student with equal access and equal opportunity to demonstrate his or her skills and knowledge (State of Florida, Department of State, 2000). Accommodations assist students in working around the limitations that are related to their disabilities and allow a student with a disability to participate with other students in the general curriculum program. Accommodations can be provided for: instructional methods and materials; assignments and assessments; learning environment; time demands and scheduling; and special communication systems. By comparison a modification is a change in what a student is expected to learn and demonstrate. The use of a modification for a student changes the standard, the instructional level, or the content to be learned by the student (Beech, 2000).

According to the Assistive Technology Education Network (ATEN) of Florida (2000), instructors of any classes that have students with disabilities should provide students with:

- opportunities to interact with others,
- varied models of print use,
- choices—and then wait for the student to respond,
- opportunities to communicate, and
- expectations that students will communicate, this may require the use of an alternate or augmentative form of communication.

Online instruction, especially through asynchronous Internet presentation, provides all of ATEN's requested opportunities for students. In a "traditional" course, a teacher or professor would be in a classroom, with the students sitting at tables or desks, and there would be lectures, demonstrations, possibly videos and slideshows, handouts, and readings. In an online course in an asynchronous course model, these interactions could still take place, but without the limitations of specific time and location (Picciano, 2001). In such a distance learning course, the main interactions between the student and the instructor take place using course Web pages, streaming audio and video, forums, e-mail, and online books. Assistive tools that a student with special needs may require could be more easily applied in the online environment; such assistive tools may include speech-to-text programs, environmental control devices, or assistive hearing devices. Additionally the asynchronous course design allows the students to access the information at the course Web site and learn at a time convenient to them (Barron, 1999). Within online course sections there could be forums or discussions in which students can participate, allowing each and every student the opportunity and appropriate time to develop and share responses, again without the time restrictions of the standard class period.

The Law, the IEP, and Education

Federal laws and their directives charge that each student classified as having any form of disability have an individual education plan (IEP) developed specifically for that student, that assistive technology devices and services must be considered, and that the student must be taught in the least restrictive environment (Individuals with Disabilities Education Act, 1992). The IEP will be developed by a team of people including teachers, administrators, counselors, parents, outside experts (as needed), and often the student. Distance learning can be considered an adapted form of instruction that through the use of telecommunication technology (usually the Internet) allows a student to participate in a class, meeting the classification of assistive technology. While some students with special needs may choose distance learning courses because these courses provide the necessary accommodations or educational modifications that they need in order to function in that form of "classroom," that in and of itself is not enough. It is up to educators to make sure that the accommodations and educational modifications necessary for these students to function in our classrooms exist or can be made available to these students as they need them. The educational charge extends to ensuring that distance learning classes are also accessible. These distance learning courses or situations must be designed, accommodated, or modified to allow students with special needs to be able to effectively participate.

Distance Learning and Students with Disabilities

A recent survey of seven open enrollment distance learning schools (state, public or private, or college/university) that offered Internet-based instruction may indicate trends in the current status of distance learning programs and special needs students. The distance learning population of the responding schools ran from 300 to 5,000 full- or part-time students, with an average of approximately 1,000 students. Most schools indicated that they did not have records or tracking methods for identifying students with disabilities. Schools that did identify these students indicated that special needs populations ran between 2% and 10%. With the exception of the responding university school, all the K12 distance learning schools indicated that their teachers have participated in IEPs for students. Half of the respondent schools indicated that they currently had students taking courses as part of the student's IEP, as recommended or required by the student's home school IEP team. The schools also indicated that they did not participate as IEP team members, but that the school or distance learning environment was written in as a service in the student's IEP. A consistent thread in the responses was that the distance education schools were

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