

Running Head: BRIDGING WORKING STRATEGIES

Bridging Working Strategies of Faculty Members with Disabled Students

An Action Research Project (A Scenario Case)

by

Carolyn Tan

A Paper Presented in Partial Fulfillment

Of the Requirements of

ED5006 Survey of Research Methodology

September 8th, 2005

E-mail: Carolyn.Tan@sbcglobal.net

Instructor: Gordon Graham Ph D

Abstract

The purpose of this action research project is to determine the cause for complains from disability counselors and frustrations from faculty when working with disabled students in the Digital Communication Department (DCD), Houston. DCD would like all students including disabled students to have their learning needs met. A literature review is included with statistical information on how the growth of disability students along with the impact of technology where meeting the needs of disabled students is crucial. DCD's action team is comprised of disability counselors, faculty and administrative staff. The following topics are discussed, research process and strategy methods conducted, data collected during the research design process and how its results can be used to help change the problem situation.

Bridging Working Strategies of Faculty Members with Disabled Students

The Topic That Establishes the Context of this Research Project

Rapid change and development in technology has caused many higher education institutions to have to face additional challenges in dealing with Americans with Disabilities Act (ADA) issues. Colleges and universities are required by the Department of Education under Sections 504 and 508 of the Rehabilitation Act of 1973, “to ensure the accessibility of its programs and activities to individuals with disabilities, specifically its obligation to acquire accessible electronic and information technology” (U.S. Education Department, 2004, p.1). For example, there are many departments like Digital Communication Department (DCD), in a public college community system which offers computer and cutting edge technical based graphic programs that need to be aware of ADA compliances.

Statement of the Research Problem

As an increasing number of college students with disabilities are entering the higher education field, instructors need to be trained how to handle the needs of these students (Salzberg, 2003). There are many students with disabilities, such as vision/blindness, hearing loss/deafness, mobility and learning challenged who are trying to pursue their higher education. The problem is many faculties in technical colleges offering computer based courses are unaware of how to provide for these students, what their needs are and how they can ensure that they get a quality education just as everyone else in the college.

Faculty members in the Digital Communication Department (DCD), teaching technology courses in the graphic and multimedia area presently need to deal with challenges on how to accommodate or handle students with disabilities. This is because they either do not have the pedagogical expertise or knowledge to handle such challenges. Hence, students with disabilities

are constantly facing learning barriers in the classrooms. The department chair has numerous received numerous complains from the ADA counselors that instructors need to know how to work with students with disabilities. Instructors are frustrated and felt that it is very difficult to meet accommodations. It is also very difficult to students with disabilities to work in a technology area that is rapidly changing.

Why this Topic is Worthy of Study

A 1990-2002 digest of educational statistical study by NCES indicates an increasing amount of children served under the Individuals with Disabilities Education Act across the United States (NCES, 2004). These children will end up being in higher institutions at some point. At the same time there is also an increase use of computers in educational institutions. NCES (2004) states that, “The percentage of public high school graduates taking at least one computer education course increased substantially between 1982 and 1990, and then remained relatively steady through 1994” (p.2) At the same time, research has also shown a rapid growth in technology with the use of computers in the education system.

The question is with statistics showing an increase use of computers and technology in a classroom that can help facilitate learning, what effective plan or model can be used to help the departments like DCD and other technical colleges deal with students with disabilities issues and challenges? At the same time will students with disabilities have the opportunity to have their educational dreams and goals fulfilled?

Deficiencies in What we Know

Most institutions are aware of the need to meet ADA compliances. Currently there has not been much research done with a specific focus in the area of accommodating students with

disabilities in the field of computer classes. Recourses of meeting ADA compliances are available, but how and when those resources should be used is unclear.

The Audiences this Research Project is Intended For

The purpose of this research will benefit administrative staff, faculty and counselors of technical colleges and universities offering computer based courses. Outcomes of research studies will serve not only as a tool that can help them understand the issue but also facilitate as a guide or model how to deal with students with disabilities concerns within their department.

Literature Review

The number of student enrollment with disability or students under the American with Disability Act (ADA) is growing every year. The Americans with Disability Act applies to all higher educational institutions receiving any type of federal financial assistance. Section 504 of the Rehabilitation Act of 1973 requires all colleges and universities receiving federal financial assistance to provide reasonable accommodations for students with disabilities. Reports show that higher education institutions in the United States are currently faced with an increasing number of students with disabilities. According to the National Center for Educational Statistics (NCES), about 10 percent of the 14.5 million students enrolled in higher education in 1994 have at least one form of disability. 40 percent of these students have orthopedic and neurological related disabilities, while others had learning disabilities, physical and psychiatric disabilities (as cited in Paul, 2000). Since 1997, 1 out of 11 entering freshman has a disability. Most faculty members are not trained on how to accommodate students with disabilities. They are also unaware of the availability of support services and policies governing the provision of accommodations at their institutions. As a result, the learning progress of disabled students is often unintentionally hindered by faculty members (Salzberg, 2003).

A research study on student disability experiences in higher education conducted by the Scottish Council for Research in Education (SCRE) concluded the following, “Several students described very good experiences with staff in their academic departments. Many staff members have positive attitudes towards students with disabilities, but may not have relevant knowledge or experience to back that up. The staff seems to be particularly ill-informed about dyslexia. In a small number of cases, students have encountered negative attitudes towards their disability” (Hall & Tinklin, 1998, p. 38).

Technology Impact in Higher Education and Student with Disabilities Compliances

In addition to growth concerns with students with disabilities challenges for administration and faculty, rapid development in information technology is another added subject of concern in higher education. Colleges and universities are required by the Department of Education under Sections 504 and 508 of the Rehabilitation Act of 1973 (U.S. Education Department, 2004). While having to accommodate technology type courses in a classroom, institutions on the other hand can utilize advances in technology to help with disability challenges.

Current Disability Accommodation and Available Resources

As the statistics from NCES that were presented earlier in this paper indicated there are many disability issues that are prevalent in higher education institutions. The following section of discussion will focus on three types of disabilities commonly faced in technology based classrooms. The 3 disability categories are (a) visually impaired, (b) hard of hearing, and (c) physical disabilities associated with mobility issues. Studies and accounts on how students with different disabilities dealt with their environment and how institutions and disability organizations have taken measures utilizing technology to meet ADA challenges are included.

Visually impaired. Visually impaired students face with a variety of concerns during their first year of college admission. These include (a) registration procedure during admission process, (b) social interactions with peers, (c) adjusting to building locations on campus environment, (d) locating for readers or note-takers, and (e) finding adaptive equipment that can help with reading and class assignments.

Broom, Sikka & Leda (1994) from The Rehabilitation Research and Training Center (RRTC) on Blindness and Low Vision states that research is required to help identify skills, knowledge and steps that can help students with visual impairment succeed in their college life. An example of a research conducted by RRTC contained the following questions. First, what do students with visual impairments need to know about attending college? Second, what steps do visually impaired students need to take in order to successfully attend college, and finally, do skills, knowledge and steps differ from student's perspective versus program administrators? Questionnaires covered domains of student's demographics, educational history, types of adaptive equipment and resources used including computers, college preparation process, and shared experiences of classroom experience that included assignment completion and time management. Collection of data done through telephone interviews with 102 currently enrolled sophomore students who "survived" their freshman year. The students were able to share their views and ideas about succeeding in a college environment (Broom et al. 1994).

Colleges and Universities need to offer programs for the blind to help them pursue their academics and accommodate their needs. They can utilize and review the research methods discussed in the RRTC literature example to help deal with the challenges. Besides conducting research on students, RRTC was also able to gather data from previous research and literature about visual impairment. Colleges and Universities also have ample web resources to help

administration and faculty work with visually impaired students. Schools that need information on computer accommodation may utilize the example from Foothill Community College (See Appendix C). The college, which has a long standing commitment to excellence and accessibility to education, offers a listing of resources describing how they assisted their blind and vision impaired students (Foothill College, 2000).

Institutions offering technology based classes have to meet ADA compliancy in the area known as “Adaptive Technology” or Assistive Technology (AT) (See Appendix D). The Assistive Technology Act of 1998, defines AT as, "any item, piece of equipment, or product system, whether acquired commercially, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of individuals with disabilities. Assistive technologies include: screen readers and magnifiers, closed captioning, alternative keyboards, and other special software and equipment that makes information devices more accessible” (NCCDR, 1998, p. 1).

Hard of hearing. There are several programs that are available to postsecondary students who provide technical assistance to individuals who are deaf or hard of hearing. A program known as the Postsecondary Education Programs Network (PEPNet) focuses on deafness and hearing loss impairments. This program’s purpose with its listed objectives is available to two and four year colleges (see Appendix E). Foothill Community College also deals with hearing impairment issues in the technology area. The college has computer labs that assist their deaf and hard of hearing students (see Appendix D).

These are examples drawn from an institution that is effectively assisting deaf and hard of hearing learners that higher learning institutions can draw on. The material presented by Foothill Community College outlines important objectives and makes information available to

institutions that need support. Higher educational institutions can therefore help students with hearing impairment pursue their educational and training goals.

Physical impairment and mobility. A physical impairment is defined by the ADA as, "Any physiological disorder or condition, cosmetic disfigurement, or anatomical loss affecting one or more of the following body systems: neurological, musculoskeletal, special sense organs, respiratory (including speech organs), cardiovascular, reproductive, digestive, genitourinary, hemic and lymphatic, skin, and endocrine" (National Institute on Disability and Rehabilitation Research, 2004, p. 3).

Colleges and Universities have to structure buildings and facilities to meet mobile accessibility issues. This includes parking zones, ramps, elevators, space allowance, doors, entrances, design of tables and chairs (2004). Environmental accommodation for students with disabilities is not a major issue for most institutions. Today many higher education institutions are required to build computer rooms with ADA compliances such as adequate floor space between computer stations for mobility issues and special chairs and desks.

Implications of Student Disability Growth with Available Resources

A journal report on the analysis and synthesis of published research done between 1985 to 2000 on how institutions, administration and students dealt with ADA resources and services was put together by Mull, Sitlington and Alper. The findings indicated that services dealing with students with learning disabilities are available in post education. The article states, "11 program factors examined were: definition of learning disability, characteristics of adult learners, type of institution, special admission procedures, assessment services, program accommodations, support services, instructional adjustments, instructional, staff training, direct service staff training, and program evaluation" (Mull, Sitlington, & Alper, 2001, p. 6). However the findings

indicate that there is a need for students, administration and faculty to hold training and awareness sessions about students with disabilities services. This can help students know what and how to request for accommodations while administration and faculty will understand how to work with students' needs, hence benefiting both parties.

In another nationwide survey study which focused on training programs given by Disability Service Directors (DSO) of the Association of Higher Education and Disability (AHEAD) to higher education faculty members, it was found that substantive, quality and effective training was needed. Institutions must find ways to get faculty interested and involved in the training sessions so they can become equipped to better serve the projected growth of disability students (Salzberg, Peterson, Debrand, Blair, Carsey, & Johnson, n.d.).

Future Research and Considerations

The study literature indicated a need for future research focusing on the effectiveness of students with disabilities training in higher institutions. Salzberg et al. (n.d.) stated that it is also important that both faculty and students' opinions be taken into consideration about program effectiveness. Forms and delivery of training methodology such as individual and group in both onsite and web-based formats are options to consider that can satisfy faculty in higher institutions.

Research Design

Research Purpose and Research Questions

The purpose of this action research project is to determine the cause for complains and frustrations from faculty when working with disabled students in the Digital Communication Department (DCD), Houston. DCD would like all students including disabled students to have their learning needs met. According to Mills, action research is a systematic inquiry conducted

by educators in their institution where data is collected and studies with a goal to help (“action taken”) improve the learning environment (as cited in Creswell, 2005).

DCD would like to help faculty overcome their frustrations and also help meet the disabled students learning needs. The research will also be based on a practical action approach where the current situation will be analyzed and studied by one of the faculty members (Creswell, 2005). A group of faculty members and staff are willing to be part of the research team. Together they will form an action plan. Qualitative survey research questions will be distributed to DCD faculty members and data will be collected and analyzed to help find out the cause for faculty frustrations. The formulation of research questions will be discussed further in the research and methodology section.

Selection and Justification of Research Design

This research type of action plan has a practical focus for DCD. Both instructors and students will have immediate benefits from the research process. This is going to be a dynamic process with a self reflective research where faculty members (research team) will evaluate DCD’s and faculty practices, collect and discuss data including end of semester past course evaluations from students with disabilities, making necessary adjustment to research questions where applicable. Research data will be presented to the department chair and college dean. Also, the research team will locate resources that can help address the problem. Examples may include having discussions with ADA counselors, searching for other research approaches or methodologies (examples of questionnaires used) which had helped with other institutions, and utilize the internet for current students with disabilities and ADA resources.

The purpose of action research is to better the lives of participants (Creswell, 2005).

Eventually it is the hope that from the action research process, faculty will gain better understanding about ADA needs and issues, while students' needs can be met at the same time.

Selecting and Enlisting Research Participants

A meeting will be set up with the ADA department, department chair from DCD and volunteer team who will assist with addressing the issue. It has been identified that faculty lacks training or have no knowledge in handling students with disabilities. The chair is aware that this is a common issue in higher education institutions. As an increase number of college students with disabilities are entering the higher education field, instructors need to be trained how to handle the needs of these students (Salzberg, 2003).

With the help of the ADA counselors, a volunteer research team will assist the department by, (a) organizing meetings to help set up research methodology in the department that can help address ADA issues, and (b) design resource materials about ADA challenges that can be accessed from the department's website. This team will also study research which has been done in the other colleges and universities. Similar research ideas such as surveys and methodologies applicable to the department will be utilized. The survey participants will consist of both full time and adjunct faculty members of DCD.

Methods Used for Data Collection

A variety of research methods conducted by other colleges and universities will be studied by DCD action research team before making a decision for the data collection methodology feasible for the action research. This is one of the strategies which can serve as a guide for the action research team (Creswell, 2005). Before conducting the proper research, an analysis and study on past research instruments used by other organizations will be examined.

This includes successful research techniques and challenges along with data collection methods such as research samples of interview questions. The following is a compiled study list of organizations, colleges and universities involved in research projects that can help the action team organize, design and plan the project effectively.

1. Research conducted from 1985-2000 on post education services dealing with students with learning disabilities. “11 program factors examined were: definition of learning disability, characteristics of adult learners, type of institution, special admission procedures, assessment services, program accommodations, support services, instructional adjustments, instructional, staff training, direct service staff training, and program evaluation” (Mull, Sitlington, & Alper, 2001, p. 97).

2. Research conducted on disability services offices nationwide. An account on how to successfully facilitate faculty training focusing on the need, content, issues, formats, media, and activities is included (Salzberg, Peterson, Debrand, Blair, Carsey, & Johnson, n.d.).

3. An article, “Preparing higher education faculty for students with disabilities: It’s right; it’s smart; and it should be mandatory”, that explains the facts of ADA and students with disabilities and the need for faculty training (Salzburg, 2003).

A set of qualitative survey questions that best fits DCD will be designed to find out faculty’s knowledge and experience on students with disabilities issues. Samples of previous research surveys from the University of Delaware and Association on Higher Education and Disability (AHEAD) will also be used as guides to design questions (See Appendix A & B).

Ethical Considerations

A signed consent form will be designed and used during the research interview process (see Figure 1). The purpose of the informed consent form is to guarantee participants the

protection of their rights while they participate in the survey (Creswell, 2005). They are free to withdraw from the survey anytime and it will not affect their relationship with the department.

Also, all information will be kept anonymous and confidential.

Figure 1. Sample Informed Consent Form (Creswell, 2005, p.152-153)

Faculty Qualitative Survey - Addressing students with disability concerns in Digital Communication Department

The following information is provided to help you decide whether you wish to participate in the present study. You should be aware that you are free to decide not to participate or to withdraw at any time without affecting your relationship with the Digital Communication Department, Houston Community College System.

The purpose of this action research project is to determine the cause for complains and frustrations from faculty when working with disabled students in the Digital Communication Department (DCD), Houston. The list of survey questions is listed below. All surveys are to be turned in along with the student grade sheets at the end of Fall 2005 semester. The survey data will be the only data collected in the study.

Please do not hesitate to ask questions about the study before participating in the survey. You may contact Carolyn Tan, Research Coordinator at 713,718. 7896 or Patricia Porcynaluk, Department chair at 713.718.7891. We will be happy to share the findings with you after the research is completed. Your name will not be associated with the research findings in any way, and only the researchers will know your identity.

There are no known risks and/or discomforts associated with this study. The expected benefits associated with your participation will help the department address students with disability concerns and issues.

Please sign this consent form. By submitting this form, you are acknowledging full knowledge of the nature and purpose of the procedures. A copy of this form will be given to you for future reference.

Signature: _____

Date: _____

Carolyn Tan, Research Coordinator, DCD (713,718.7896)

The action team will request permissions in written format from universities and organizations permitting the reuse of their survey questions used in past research projects for DCD's research questionnaires. This will ensure ethical and copyright measures are strictly adhered.

Analysis of Data

Data collected from the action research in the form of qualitative survey questions can help find out the type of training faculty needs, how much knowledge and experience each faculty has, past classroom experiences with disabled students and current concerns. The answers or feedbacks from the questionnaires will be recorded and studied by the action team such as (a) the types of disabled students enrolled at DCD, (2) experiences and measure taken by faculty how they have accommodated disabled students in a higher education environment, and (3) whether they have received any kind of training in the past. In addition, open ended questions will help the researcher explore or obtain additional or overlooked information during the research process. Data will help determine if faculty has received adequate training in understanding the dynamics of working with disabled students. Also the data will help reveal the

types of student disability concerns and issues which faculty are facing. Hence, the planning of further action by the team can be used help remedy the situation.

Limitations of research design

Currently the research is limited to only faculty members of DCD. Student interviews has not been included as part of the research at this point. Since this is going to be a first research conducted at DCD, it was felt that the focus should be on faculty members. Upon analysis of research results, a follow up research such as interviews will be conducted with the inclusion of students. The one on one interview process with the disabled students will be used instead of surveys in case additional assistance such as interpretation is needed. Also, there may not be enough disabled student samples to collect at this point due to its small number of possible participants.

Strategy and Research Methodology

The following timeline will be used as a guide for the project (See Table 1).

Table 1. Timeline of Action Plan Consisting of Meetings & Process for Change

Tentative Meetings & Dates	Process of Action Plan
Meeting 1 (DCD Department)	<ul style="list-style-type: none"> Chair will meet with staff and volunteer team to discuss current disabled students issues in the department
Meeting 2 (DCD & Disability Department)	<ul style="list-style-type: none"> Digital Communication Department (DCD) meets with Disability Student Department to discuss faculty training needs and students with disabilities' accommodations.(Samples studies,

	example University Mississippi and University Delaware will be used as guides)
Meeting 3 (Action Research Team consisting of DCD staff volunteers & ADA counselors)	<ul style="list-style-type: none"> • Design Research Questions for distribution
Meeting 4 (Action Research Team)	<ul style="list-style-type: none"> • Data gathering & analysis process • Research for resources from the Web to help build information site for department
Meeting 5 (Action Research Team consisting of DCD staff volunteers & ADA counselors)	<ul style="list-style-type: none"> • Action team will present data to DCD chair and ADA department. Plans for training dates will be set up for Spring 2006. • Research team will present resource informational site for department

As stated earlier, participants will consist of Digital Communication full time and adjunct instructors. The research instrument will consist of two sections: a) demographic and past experience information of participants, and b) students with disabilities questionnaire & assessment (see Table 2).

Table 2. Sample of Research Questionnaire revised to meet Digital Communication Department's environment. (Sampled from University of Mississippi)

The statements below are part of a research project to determine faculty/staff knowledge of

disability laws. This questionnaire is anonymous and your name will not be included in any way. Please return this assessment to the department secretary, Room 135 in the enclosed addressed envelope by December 20th, 2005. Online questionnaires may be submitted via completion of online form available at <http://www.dcdwebsite.edu>.

Demographic and Experience Information

1. Instructor: Check which applies area applies to you

Web Development Digital Print Technical Writing Multimedia

2. Your gender: Female Male

3. Years of experience in higher education:

Less than 1 year 1-5 years 6-15 years more than 15 years

4. The number of students with disabilities whom you have taught/advised during the last four years:

0 students 1-5 students 6-10 students 11-15 students More than 16

students

5. If you have taught students with disabilities during the past five years, please place a check mark next to the types of disabilities your students have or have had.

Communication disorder Hearing impairment

Learning disability Deaf

Mobility Impairment Vision Impairment

Psychiatric disability Other (Please specify.)

6. How knowledgeable are you about the meaning of the terms "accessible format" for students with disabilities? Circle one.

A. Very knowledgeable

B. Somewhat knowledgeable

C. Not knowledgeable

Please share your experience and steps or measures you have taken to accommodate students with disabilities.

6. What resources have you used to increase your knowledge of disability legal requirements?

Video Workshops Other (Please specify.) _____

Faculty Resource Guide Newsletters

7. Have you received college-sponsored training about the provision of special accommodations for students with disabilities?

Yes No

8. If your answer to 7 was yes, please describe below.

9. What are your past and current concerns about working with students with disabilities? How would you like to see this resolved?

Questions & Assessments

(See Appendix A & B)

Action research team and ADA counselors will meet to discuss which of the questions (designed by University of Mississippi and University of Delaware) can be reused for DCD. The

action research team will also contact the two Universities to discuss research experience and request permission for use of questionnaires. Also additional questions will be formulated if necessary.

Anticipated Obstacles

This is the first time an action plan project dealing with ADA will be conducted in the department. The action plan team may not know what to expect. Therefore they have to work closely with the disability department, and at the same time research and study past experiences that other higher institutions of learning have conducted. In addition, an ongoing research project with site resources will help provide the latest information related to technology.

The next anticipated obstacle is getting faculty to complete survey in a timely manner. The survey will be conducted at the end of the year 2005, where instructors may be busy preparing for student exams and finals. The department chair felt that the research must be conducted during this time so that the team can meet over winter break to plan for training dates for the following semester.

In order that the survey will not take too much of the faculty's time, it would be best that the team designs a survey that would take no more than 10 minutes of faculty's time. A set of sample questions is listed below. The survey will be sent out via email. It can also be downloaded from the department's website and it is also available as hard copies in the department. All surveys are to be turned in along with the student grade sheets for the semester. The department's secretary will make sure that surveys are submitted in a timely fashion by all instructors.

Conclusion

There are many institutions like the Digital Communication Department that are currently facing the need to meet ADA standards and requirements for students with disabilities. As resources and studies have shown, colleges and universities must conduct their own research to see how faculty training and development can help meet challenges.

“Respect and cooperation from faculty, students, and administration can lead to a more effective educational experience for students with disabilities. This process might call for consultation and inclusion of students with disabilities in various university-wide programs, services and activities, and provision of the necessary support services in order to enable these students achieves their academic as well as social goals” (Stanley, 2000, p.6).

It is vital that higher institution begin to prepare and help their faculty and administration deal with student disability issues as statistics have shown an increasing enrollment of students with disabilities. Action research would work well as the choice of research design since this type of research would allow the action team who is part of the organization to implement immediate changes based on the research data and results. Follow up of the research can benefit disabled students and faculty members.

References

- Broom, L.W., Sikka, A., & Leda, B.J. (1994). *The transition to college for students with visual impairments: Executive summary*. Retrieved July 20, 2005 from <http://www.blind.msstate.edu/coll.html>
- Creswell, J.W. (2005). *Action Research Designs. Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River , NJ : Prentice Hall.
- Doria, J. & Edmister, J. (n.d.) *An examination of community college faculty members' knowledge of the Americans with Disabilities Act of 1990 at the fifteen community colleges in Mississippi*. Retrieved August 15th, 2005, from http://www.ahead.org/members/jped/articles/Volume14/14_2/jped142donacomcoll.doc
- Foothill College. (n.d.) *Physical disabilities and mobility access* [Electronic version]. Retrieved July 20 2005, from <http://www.foothill.fhda.edu/al/physical/physical.html#top>
- Foothill College. (2000). *Adaptive learning division*. [Electronic version]. Retrieved July 20, 2005 from <http://www.foothill.fhda.edu/al/drc.html>
- Gallaudet University. (2001). *The Postsecondary Education Programs Network (PEPNet)* Retrieved July 20, 2005 from <http://gri.gallaudet.edu/ccg/pepnet.html>
- Hall, J. & Tinklin, T. (1998). *Students first: The experiences of disabled students in higher education*. Retrieved August 15th, 2005, from <http://www.scre.ac.uk/resreport/pdf/085.pdf>
- Mull, C., Sitlington, P., Alper, S. (2001) *Postsecondary education for students with learning disabilities: A synthesis of the literature*. [Electronic version]. Retrieved August 15th, 2005, from

http://journals.sped.org/EC/Archive_Articles/VOLUME68NUMBER1FALL2001_EC_Sittington.pdf

National Institute on Disability and Rehabilitation Research (2004). *What is the ADA: Definition of disability* Retrieved July 27, 2005 from <http://www.adata.org/whatsada-definition.html>

NCDDR. (1998). *Public law 105–394—NOV. 13, 1998* [Electronic version]. Retrieved July 27, 2005 from <http://www.ncddr.org/relativeact/statetech/ata98.pdf>

NCES. (2004). *Profile of undergraduates in U.S. postsecondary institutions: 1999–2000*. [Electronic version]. Retrieved July 16, 2005 from <http://nces.ed.gov/pubs2002/2002168.PDF>

NCES. (2000). *Vocational education in the United States: Toward the year 2000*. [Electronic version]. Retrieved July 16, 2005 from <http://nces.ed.gov/pubs2000/2000029.pdf>

NCES. (2004). *Digest of education statistics, 2003*. [Electronic version]. Retrieved July 16, 2005 from <http://nces.ed.gov/programs/digest/d03/tables/dt054.asp>

NCES. (2004) *How does technology affect access in postsecondary education? What do we really know?* Retrieved July 16, 2005 from <http://nces.ed.gov/pubs2004/2004831.pdf>

Paul, S. (2000). Students with Disabilities in Higher Education: A Review of the Literature. *College Student Journal*, 34(2), 200 [Electronic version]. Retrieved July 20, 2005 from Questia database, <http://www.questia.com>.

Salzberg, C. (2003). *Preparing higher education faculty for students with disabilities: It's right; it's smart; and it should be mandatory* [Electronic version]. Retrieved August 15th, 2005, from http://asd.usu.edu/resources/files/preparing_faculty.pdf

Salzberg, C., Peterson, L., Debrand, C.C., Blair, R.J., Carsey, A.C., & Johnson, A. (n.d.)

Opinions of disability service directors on faculty training: The need, content, issues, formats, media, and activities [Electronic version]. Retrieved August 15th, 2005, from

http://www.ahead.org/members/jped/articles/Volume15/15_2/jped152salzbergopinionsRA.doc

Stanley, P. (2000). Students with disabilities in higher education: A review of the literature [Electronic version]. *College Student Journal*, 34 (2), 200-208. Retrieved August 31st, 2005, from Academic Search Premier database.

University of Delaware. (2000). *ADA faculty survey*. Retrieved August 15th, 2005, from <http://www.udel.edu/ADA/Fac/survey.html>

U.S. Department of Education. (2004). *Assistive technology*. Retrieved July 10, 2005 from <http://www.ed.gov/policy/gen/guid/assistivetech.html>

Appendix A

Sample Survey #1 - Assessment of Faculty Knowledge of the Americans with Disabilities

Act of 1990 Policies and Guidelines (Doria & Edmister, n.d., p.8)

The statements below are part of a research project to determine faculty/staff knowledge of disability laws. This assessment is confidential, anonymous and your name will not be included in any way. Please return this assessment to _____ in the enclosed addressed envelope by _____.

1. Your title: (Please check one.)

Instructor: ___ Academic ___ Vocational ___ Technical

2. Your gender:

 ___ Female ___ Male

3. Years of experience in higher education:

___ Less than 1 year ___ 1-5 years ___ 6-15 years ___ more than 15 years

4. The number of students with disabilities whom you have taught/advised during the last four years:

___ 0 students ___ 1-5 students ___ 6-10 students

___ 11-15 students ___ More than 16 students

5. If you have taught students with disabilities during the past four years, please place a check next to the types of disabilities your students have or have had.

___ Communication disorder ___ Hearing impairment

___ Learning disability ___ Deaf

___ Mobility Impairment ___ Vision Impairment

Psychiatric disability Other (Please specify.)

6. What resources have you used to increase your knowledge of disability legal requirements?

Video Workshops Other (Please specify.) _____

Faculty Resource Guide Newsletters

7. Have you received college-sponsored training about the provision of special accommodations for students with disabilities?

Yes No

8. If yes to seven, please describe below.

The following answers needed for the following questions will be either one of the following:

1. Yes 2. No 3. Don't Know

1. A person is considered to be a person with a disability if he/she has the disability, has a record of the disability, or is regarded as having the disability.
2. Faculty and staff in higher education are required to provide a student with a disability accommodation even if the student does not request it.
3. A student with a disability may ask for and expect Accommodation in a classroom even though the student has not provided documentation that the disability exists.
4. Students are required to assume the responsibility for securing a necessary accommodation.
5. A classroom's location must be changed to provide accessibility for a student with a mobility disability.
6. An instructor who decides that a student with a documented learning disability does not need extended time on a test may choose not to give this accommodation.

7. The method of administering an exam must be altered if the testing procedure puts a student with a disability at a disadvantage based on the student's documented disability.
8. A student with a speech disorder must be given an alternate assignment to presenting an oral report.
9. Student requests for accommodation must be granted even when the accommodation would result in a fundamental alteration of the program.
10. The university may refuse to grant a student's request for an accommodation which is not supported by the student's documentation.
11. If a student with a visual disability is enrolled in a class, the institution must provide all handouts in the alternate format requested by the student.
12. The institution must make course material on reserve in the library available in alternate format for students with visual disabilities enrolled in the course.
13. If a student with a disability has difficulty writing, the instructor is responsible for providing the student with an oral test.
14. Faculty members have the right to access diagnostic information regarding a student's disability.
15. If a student's documentation specifically recommends a quiet testing area with no distractions, the instructor must allow the student to take an exam in a room different from the classroom with a proctor.
16. An individual faculty member who fails to provide an accommodation to a student with a documented disability may be held personally liable.
17. The instructor's academic freedom permits the instructor to decide if he/she will provide special aids and services for students with disabilities in the classroom.

18. Faculty must restructure the presentation of their courses and their course requirements if a student with a disability requests
19. Asking to copy the notes of other class students is a reasonable accommodation for a student with a learning disability who finds note taking distracting from his/her ability to listen to the class lecture.
20. The instructor must meet with a student with a visual impairment before class to make sure the student has resources to complete the course requirements.
21. Nothing within the ADA or Section 504 requires a college to waive essential course requirements; however a refusal to grant a waiver must be justified.
22. Accommodations for testing such as readers, scribes, or the use of adaptive equipment must be provided for a student with a documented disability.
23. An institution of higher education must follow a grievance procedure that includes a grade change if appropriate disability-related accommodations were not provided.

Appendix B

Sample Survey #2 (University of Delaware, 2000)

2. Students with disabilities often request exam accommodations like computer access, extended time, readers, scribes, enlarged print, and so forth. These services are coordinated by the ADA Office. Have you had students who use these services?
IF YES, CONTINUE READING QUESTION: How satisfied were you with the coordination of these services?
 - A. Very satisfied
 - B. Somewhat satisfied
 - C. Not satisfied
 - D. Extremely displeased
 - E. No opinion
3. What type of changes would you like to see made in these exam accommodations procedures? Please note that while suggestions are desired, implementation may not always be feasible, for a number of reasons.
 - A. (Type response)
 - B. No opinion
4. How knowledgeable are you about the meaning of the terms "accessible format" for students with disabilities?
 - A. Very knowledgeable
 - B. Somewhat knowledgeable
 - C. Not knowledgeable

5. Faculty are responsible for ensuring that classroom materials are available to students with disabilities in accessible format such as enlarged print, Braille, audio tape, computer disk, and so forth. How likely is it that you will take the initiative for seeing that arrangements are made for providing students with a disability in your class with these materials?
- A. Very likely
 - B. Somewhat likely
 - C. Not very likely
 - D. No opinion

Appendix C

Computer access for students with visual impairments may include (Foothill College, n.d.):

1. Production of Braille or large print materials.
2. Instructions in the use of and provision of access to CCTV for enlarging original documents.
3. Screen enlargers such as Zoomtext and Closeview.
4. Instruction in the use of and provision of access to screen reading technology
 - JAWS -- a screen reader for Windows and PC platforms.
 - Outspoken -- a screen reader for Macintosh platforms.
5. Embossing for maps or diagrams to provide tactile images.
6. Proctoring of tests, including additional time with access technology.
7. Scheduled and priority use of computer equipment.
8. Instruction in keyboard use.
9. Liaison to other campus departments and programs, including on-campus registration assistance and mobility orientation.

Appendix D

Computer access for students with physical disabilities may include (Foothill College, n.d.):

1. Assessment and recommendation of viable computer solutions including:
 - Hardware
 - Software
 - Ergonomics
2. Types of physical disabilities may include vision, speech, hearing, acquired brain injury, and mobility.
3. Hardware Solutions may include instruction in the use of and access to:
 - Alternative mouse --
trackball, Wacom mouse, head mouse, footmouse.
 - Keyboard --
ergonomic keyboards, alternative keyboards, one hand typing instruction or sightless keyboarding.
 - Screen filters --
glare reducers and color overlays.
 - Modification of seating and computer-user interface --
special chairs, wrists rests, arm supports, footrests, and adjustable table heights for wheelchair access.
4. Software Solutions may include instruction in the use of and provision of access to:
 - Voice input --
dictation systems Dragon, Naturally Speaking, or Via Voice.

- o Voice output --

Zoomtext 3 for enlargement and sound output,

Jaws for screenreading, and

Kurzweil Reading Systems for screen reading and word definition.

Appendix E

PEPNet's Objectives (Gallaudet University, 2001)

1. To improve postsecondary access and transition opportunities for individuals who are deaf and hard of hearing
2. To develop a national design for technical assistance and outreach service delivery to assure that postsecondary institutions and the students they serve will benefit from PEPNet's collaboration and coordination efforts
3. To expand the knowledge and skill of postsecondary institutions related to the provision of educational support services for students who are deaf and hard of hearing
4. To increase networking among postsecondary educational institutions
5. To increase the postsecondary enrollment, retention, graduation, and employment rates of students who are deaf and hard of hearing

Appendix F

Computer access for students with hearing impairments may include (Foothill College, n.d.):

1. Phonic Ear Personal FM Systems
2. Tape recorders.
3. Auxiliary hearing devices.
4. Real time captioners and/or notetakers.
5. Sign language counseling, interpreting, TDD (650/948-6025) and mail available in lab.
6. Software for English vocabulary, spelling and grammar.
7. Instruction in use of and provision of basic computer and keyboard skills.
8. Instruction in the use of e-mail, internet and support.