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ABSTRACT

This document collects 23 study proposal briefs presented to the National Center for the Study of Postsecondary Educational Supports. The proposals address the following topics concerned with postsecondary services for students with disabilities: cultural empowerment, longitudinal analysis of postsecondary students' experience, effective models of educational supports, effective instructional strategies and supports for students with learning disabilities, trends in vocational rehabilitation at the postsecondary level, promising educational support practices in two-year postsecondary settings, promising practices resulting in improved programs and studies, comparative analysis of disability policy, inclusion of students with developmental disabilities in postsecondary settings, recent federal policy and directives, accessibility of postsecondary distance education, impact of the Internet and other support activities on educational and employment outcomes, the role of families, inclusion in science/engineering/mathematics, transition from two-year to four-year institutions, employers and people with disabilities, quality of life after postsecondary education, experiences and perceptions of participants and parents, a resource mapping matrix proposal, the initiating function of institutions, the role of the rehabilitation counselor in transition, effects of postsecondary settings on employment outcomes and transfer of technological supports, and professional development for faculty and staff regarding inclusion of students with disabilities. (DB)

Phase II
Study Proposal Briefs

April 2001

University of Hawai`i at Manoa
Center on Disability Studies/University Affiliated Program
National Center for the Study of Postsecondary Educational Support

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Study Proposal Briefs
April 2001

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* *Completed studies*

** *New studies started this quarter*

Addendum to PHASE II STUDY PROPOSAL BRIEF #1

OCTOBER 2000

(MS#016a Addendum-H01)

University of Hawaii, Manoa Center on Disability Studies
National Center for the Study of Postsecondary Educational Supports
Yuen, JoAnn, & Shaughnessy, Brian

Previously Titled:

An Intervention Study: Banking on Cultural Capital—Creating Value-added Learning for Persons with Disabilities in Postsecondary Education Settings

Re-titled for Submission May 1, 2001:

Cultural Empowerment of Students with Disabilities in Postsecondary Education

Key Words: **Postsecondary education, students with disabilities, persistence and retention, cultural capital, cultural empowerment**

Abstract

To improve the graduation rate of students with disabilities who attend colleges and universities, a response strategy consisting of four components is advocated: self-determination and self-advocacy curriculum developed to build life skills, faculty committed to increasing cultural capital for all students and sustaining environments where positive postsecondary experiences flourish; a range of related services; and a coordinated system of supports that is student-centered and delivered in the classroom.

In Support of Modified Timelines

The timelines of Brief One have been modified because the assumptions surrounding the conceptual framework became suspect. Additional inquiry into the literature became the priority and the development of self-determination curriculum was delayed to Spring 2000, and the class to Fall 2001. A white paper

and article for the Journal of Vocational Rehabilitation were produced during the winter of 2001 and completed February 1 and April 1 respectively.

The original proposal of this study identified existing self-determination curriculum to be used in post-secondary settings because over 60 self-determination curricula have been developed through OSER projects in secondary education (Test, Karvonen, Wood, Browder, Algozzine, 2000). Self-determination curricula are seen as one way to improve post-school outcomes for students with disabilities but their effects are suspect given the fact that students with disabilities continue to have poor outcomes. An average of 22% of all students with disabilities drop out of school compared to only 12% of their peers without disabilities (Benz & Halpern, 1987). The rates for students with disabilities in postsecondary education, while improving, are still 50 percent lower than that of the general population (Stodden and Dowrick, 2000; OSEP, 1992). Students with disabilities—in spite of self-determination efforts and the number of supports available in secondary education—are still not adequately represented in post-school education and employment settings. Researchers began to question the assumption that curricula created for secondary education could be readily used on college campuses. Researchers returned to the literature to better understand three issues: adapting secondary education curricula to postsecondary settings and a set of students with entirely different needs and opportunities; understanding campus dynamics to better support program and outcome success; and framing self-determination within a context of cultural capital.

What was determined is ineffectiveness of secondary education supports and curricula for students with disabilities does not appear to lie in substance or content but in the failure to integrate efforts within the larger campus environment. Ineffectiveness also appears to be the result of a lack of commitment and support from the campus at large (Berliner & Biddle, 1996; Edgar, 1997; Hatch, 1998; USDOE, 1995, 1996; Waldron & McLeskey, 1998), and reinforced by the lack of resources (Jorgensen, 1997; Oakes & Wells, 1998; Vaughn, Schumm, & Brick, 1998). Another side to the problem appears to be in the way services "wrap" (surround and support) students. At the secondary level students have fewer opportunities but are support and entitlement rich; and postsecondary students have greater opportunities but fewer supports (Rumrill, 2001). Compounding the challenge to

serve, postsecondary students are not identified by an IEP and can remain invisible within a postsecondary environment.

Looking into the future, the college student of the 21st century will most likely be non-traditional. These students tend to delay college attendance and are older when they first enroll in a postsecondary education. Non-traditional students usually live at home, commute to school, may work part-time or full-time off-campus, and have family obligations (Bean and Metzner, 1985). Research (Rendon, 1994) suggests that these non-traditional students expect institutions to take the initiative in assisting them. They look to external mechanisms such as programs and supports, to reach out to them. These external mechanisms exist on college campuses, although with varying degrees of success. With the growth of the non-traditional student and a truly diverse college campus, the problem continues to be integrating students within the campus culture, making them more resilient and conferring degrees.

Secondary and postsecondary campuses reflect two different campus environments. In secondary education, students have fewer opportunities (variety, latitude and frequency of behavior options) and more services and supports to "wrap" them. In postsecondary education the opposite is true, students have more opportunities but fewer services and supports to "wrap" them. The effort of this research/teaching project becomes finding ways to teach, support and integrate students within the campus community. Curriculum is responsible to teach students self-determination skills to enhance the process of self-discovery through self-awareness, an historical perspective, and understanding legal rights. Curriculum and faculty are also responsible for getting students out into their world and linking them with resources and people outside of the classroom. Students must learn how to put skills to use to find supports, fulfill goals and work toward dreams. As students with disabilities become involved in their world they become more visible. When they and others begin to see themselves reflected in the community at-large, they have greater opportunity to define and effect change. These abilities and opportunities are critical for successful journeys toward self-determination and cultural empowerment.

Proposed Research Collaborations

We will share quantitative and qualitative instruments to evaluate students with disabilities who are participating in self-determination courses in Hawaii and Michigan

(Peg Lamb, Ph.D., Holt Public Schools). Curriculum activities will also be implemented across campuses to improve outcomes and advance the teaching of self-determination and self-advocacy. Students will have opportunities to connect with "internet buddies," by sharing journal entries and networking with students on other campuses in other states.

We will share locus of control instrument to test on two student populations.

1. Quantitative Instruments. Two quantitative instrument will be used, a "self-awareness instrument" and an "internal locus of control assessment". The first quantitative instrument, a "self-awareness instrument," will be developed and administered prior to the determination of groupings. The instrument will provide an inventory of characteristics for students with disabilities entering postsecondary education and will enable researchers to identify the range of variables that influence the retention of postsecondary students who have disabilities.

2. The second quantitative instrument, an "internal locus of control assessment," will be developed and administered at the beginning and end of each intervention module (four administrations). The instrument will measure the effects of the intervention on self-awareness, self, esteem, self-determination, self-advocacy, and personal development among participating students. The instrument will measure interval changes in four areas: attitudes, knowledge and understanding, and actions concerning one's own abilities and disabilities; self-awareness and self-esteem; knowledge of educational supports as they relate to accommodation needs; and ability to develop a range of skills and plan strategies to advocate for supports in postsecondary education and subsequent workforce settings

We will use Internet and email to set up keyboard pals and network students.

1. Students have opportunities to communicate with other students—with similar interests and needs and abilities from across the country— via the Internet and create Internet buddies and a network of peers. The Internet creates

opportunities to further build and reinforce an individual's self-esteem and confidence through understanding, expression, and sharing the human experience across campuses. The Internet can also increase cultural empowerment by continuing to reflect the image of students with disabilities on each campus and throughout communities.

2. University of Hawaii Center on Disability Studies will utilize PAR and CFL methodologies to actively involve the students in both the education and research processes. The focus will be on Consumer Focused Learning through the use of shared life narratives (reflective journals) leading up to the present. Under the facilitative direction of the instructor, students will write their own life narrative story, focusing on key events and life changing moments leading up to their entrance into post- secondary education. Particular emphasis will be placed on experiences at the secondary school level. The students will be encouraged to write about key events or transitions in their lives, the meaning they ascribe to those moments, how they reacted in those moments and the way in which their life was impacted. In order to facilitate their ability to identify these moments, students will fill out a "Life-Course Chart" that plots and measures their degree of life satisfaction on a yearly basis (four quarters per year) leading up to the present. Their self-created charts will be shared with other class members. This will serve as a means of preparing the student to write their life narrative focusing on their perceived significant moments. Particular emphasis will be placed on experiences in educational settings, especially secondary school and preparation leading up to postsecondary education.

We will share in-class activities such as "resource mapping activity" and "faculty engagement"

- Students connect with the University (my responsibility to educate University about disability), and the Community (how do I become a model, mentor, resource). Students connect with the campus through a "treasure hunt". Students will map out their surroundings and create an image of the campus community

that is specific to each individual. Students are asked to venture out on the campus to identify services and supports and interview one person who provides services. In this way students are identifying supports on campus—supports that may or may not be needed during their college education. With the information they gain they become resources and mentors and can assist new students who are entering the system. Students who are informed become the managers of their own life plans and are in a better place to assist others. The same mapping activity is used to connect students to the communities they live in.

1. Students initiate contact with a peer, faculty member, or staff person (a student's responsibility to educate faculty about disability). Students are asked to venture out on campus—on foot or via the Internet—to identify a person who shares similar interests with the student. The student interviews this person and hopefully establishes a connection that will grow into a mentor relationship.

Review of New Phases and Timelines
October 2000 Proposed Timelines

Quantitative/Qualitative Instrument—October 2000 to December 31, 2000
[Pre-test-January 2001; Post-Test 1-February 2001; Post-Test 2-April 2001; Post-Test 3-May 2001]
Develop Curriculum—December 1, 2000 to May 31, 2001
Data Analysis and Write-up—April 30, 2001 to December 31, 2001
Products of the Intervention—July 1, 2001 to December 31, 2001
Products and Reports—January 1, 2001 to End of Project

Revised Timelines: February 2001
January 2001 to October 2002

Develop Curriculum—February 1, 2001 to April 30, 2001

Quantitative and Qualitative Instruments—January 1, 2001 to May 31, 2001
[Pre-test-August 2001; Test 1-October 2001; Test 2-November 2001; Post-Test-December 2001]

Data Analysis and Write-up—August 2001 to May 2002
Ongoing from Start of Course

Products and Reports—January 1, 2001 to End of Project

White Paper 2/1/2001:
Cultural Empowerment of Students with Disabilities in Postsecondary Education.
JoAnn Yuen, EdD and Brian Shaughnessy, J.D.

JVR Article 4/1/2001:
Cultural Empowerment: Tools to Engage and Retain Postsecondary Students with Disabilities
Brian Shaughnessy, J.D. and JoAnn Yuen, EdD.

Conference Presentations—2001:
PACRIM 2001, Hawaii—March 4-9
14th International Conference on the First-Year Experience—July 9-13

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Addendum 1.

Proposed Curriculum for Self-Determination Course—Fall 2001

Course Title:
HOW TO BE A SQUEAKY WHEEL WITHOUT REINVENTING ONE

Module One: Five Weeks (15 class Hours)

"How I Got Here"

Life Course Awareness through Autobiographical Narrative

This module will utilize PAR and CFL methodologies to actively involve the students in both the education and research processes. The focus will be on Consumer Focused Learning through the use of shared life narratives leading up to the present. Under the facilitative direction of the instructor, students will write their own life narrative story, focusing on key events and life changing moments leading up to their entrance into post- secondary education. Particular emphasis will be placed on experiences at the secondary school level. The students will be encouraged to write about key events or transitions in their lives, the meaning they ascribe to those moments, how they reacted in those moments and the way in which their life was impacted. In order to facilitate their ability to identify these moments, students will fill out a "Life-Course Chart" that plots and measures their degree of life satisfaction on a yearly basis (four quarters per year) leading up to the present. Their self-created charts will be shared with other class members. This will serve as a means of preparing the student to write their life narrative focusing on their perceived significant moments. Particular emphasis will be placed on experiences in educational settings, especially secondary school. Progress on individual life narratives—birth to postsecondary education—will be a primary activity of Module One.

< Self-assessment inventory >

Projected outcomes for students with disabilities in Module 1:
A consumer focused "life narrative" will enable students to:

Goals: Place oneself at the center of their own life course with empowerment skills to view themselves as the "director" of their life. Understand how to become informed, create options and make choices.

Topic: Congratulations on Making it to College—"Screw" the Disability
Now What: Services (*Kokua*) and Supports on Campus and Beyond
Assistive Technology (audio-tape books, computers)

Journal Entry: It's my wonderful life! [The World With (out) Me In It; What would my life look like without disability].

Goals: Identify key role models, authority figures, supporters and non-supporters in their lives. Understand the self as seen through others.

Topic: Cross-cultural understanding of disability across the ages:
Historical Perspective
Medical versus social model

Journal Entry: How the World Sees Me.

Goals: Attain a heightened awareness of themselves as people with both strengths and weaknesses. Understand who I am as human being. Understand my rights (e.g., legal, ethical, entitlements, etc.).

Topic: The Law—Same struggle, Different Group
Civil Rights Throughout the Ages
To Rehab Act
To IDEA
To ADA
To VOC Rehab

Journal Entry: What is disability?

Module 2: Five Weeks
(15 class Hours)

"HERE AND NOW"

SELF-DETERMINATION IN PRACTICE

This module will also utilize PAR and CFL methodologies to actively involve the students in both educational and research processes. This module will consist of two elements that facilitate self-advocacy and life course charting.

Self-Advocacy in Practice: Skills for Here and Now. The students will ask about and receive information regarding existing support services, sources of information, Assistive technology, their civil rights under the law, principles of career guidance, the role of self-advocacy in realizing self-determination and any other information deemed crucial to an effective knowledge base for authentic self- determination. Training in advocacy skills and self-determination will be offered, as well as an awareness of educational supports that might benefit their postsecondary school endeavors. Guest speakers, representatives from student services, faculty, counselors, graduates with disabilities, and other persons deemed to have valuable information and counsel relating to success in the post secondary school environment will be invited to attend.

Keeping Track: Daily Life Narrative and Life Course Charting. The student will apply the "life narrative skills" and "life course awareness" they developed in Module One in the following ways:

Students will plot their daily experience on a Life Course Chart that requires them to assign a value to the level of life satisfaction they experienced on each day for the next five weeks, including weekends (focus upon educational and related support provision and accommodation). This will culminate in a Life Course Chart that will offer a graphic representation of the student's experience over the remaining ten weeks of the course.

Students will record daily journal entries. They will be asked to describe the range of successes and failures experienced on a daily level that impacts their capacity to participate in postsecondary education. For example: obstacles encountered, frustrations, needs identified, gaps in knowledge, supports and supportive people, self-advocacy efforts; actions taken to further personal goals; school experiences; and personal experiences (family life, social life and community life).

Each class will involve a combination of these elements. Students will share their Life Course Charts, discuss them with their classmates, answer questions and read aloud sections of their journals they deem appropriate and relevant. This will serve as a catalyst for class discussion of key issues in support and the challenges students with disabilities face on a daily basis.

When it is relevant and acceptable to students, people working in areas related to student support services may be present in class and/or share in the results of discussions. Outside participation may take two forms: listening; and sharing information about resources, referrals, supports, services, legal issues, bureaucratic processes, and sources of data relevant to the students needs and academic goals.

< SELF-ASSESSMENT POST TEST >

Goals: Improve writing ability and capacity for oral communication. Understand communication process.

Topics:
- Communication Theory/Skills
- Self Awareness/Perceptions
- Self-esteem
- Perceptions of me—sense of self
- Creating Messages (verbal, nonverbal)
- Listening

Journal Entry: Assess the weaknesses and strengths in your communication process.

Goals: Articulate key moments of change in their life that impacted them significantly either positively or negatively. Understand how we see ourselves in the bigger world and how we begin to impact the bigger world.

Topic: Forest Gump: Current (mis)conceptions of disability
- I'm disabled because I don't work/try hard enough to be normal
- Self-fulfilling prophecy
- Membership [in the disabled community] has its privileges? (Free bus rides)

Journal Entry: How I affect the world around me

Goals: Gain a new clarity of the significant and meaningful events in their own life journey up to the present point. Understand my disability and how this affects my life. Enable students to set life goals and objectives and begin charting their journey.

Module Three: Five weeks
(15 class hours)
Envisioning the Future
Creative Life Course Design

"Where am I going"
Preparing for Employment

Building on the self-awareness, self-advocacy skills and knowledge gained in Modules One and Two, Module Three will turn its attention to issues surrounding the students' aspirations, supports and "life work." Module Three will not follow the conventional method of approaching the issue of employment as a task of finding a job for the purpose of making money. This section of the course will focus on assisting students identify their values, interests, talents, skills, strengths and authentic beliefs and the appropriate characteristics and demands (projected support needs) of their "life work." The characteristics of various types of workforce participation will be examined. Life work options and the supports and skills necessary for them, in government, corporations, small business, and the non-profit sector will be researched, explored and discussed. The emphasis will be on encouraging students to determine what types of life work are likely to facilitate satisfying participation in the working world and the skills needed to advocate to necessary supports. This empowering "consumer centered" orientation towards the creative pursuit of satisfying life work is consistent with the principles of self-advocacy and self-determination. This strategy teaches students to understand what is possible and appropriate and what enhances the likelihood they will identify and pursue life work that is supportive and consistently rewarding to them. Module three consists the following:

Self-assessment of Interests, Values, Strengths, Supports, and Goals. A variety of inventories and assessments will be used to help students gain self-awareness by reviewing their values, beliefs, strengths, interests and goals and support needs and relate each to prospective life work choices. These materials will be completed prior to each class and serve as catalyst for facilitated small and large group discussion. Peer to peer observation, feedback and supportive criticism will be encouraged in small groups and in the forum at large. Ultimately, these materials will ask students to describe specific life work scenarios that are appropriate, desirable and attainable. Once this is

accomplished, curriculum will offer a strategic, systematic approach to achieving goals in stages—reasonable steps—over a period of time.

Knowledge of the Life Work Sectors. In conjunction with the above assessment process, information will be shared about the qualities and expectations of various existing work sectors, including the provision of supports in the workplace. The rewards and challenges of each sector will be discussed, as will the personal attributes and skills necessary to succeed within them. The overview will include discussions of life work in the following sectors: government, non-profit, self-employment, corporate, and small business. Persons with disabilities working in each of these sectors will be invited to the course to discuss the rewards and challenges of their life work choice and the training and skills/supports necessary to succeed.

Keeping Track: Daily Life Narrative and Life Course Charting. Students will continue to apply the "life narrative skills" and "life course awareness" developed in Modules One and Two. They will continue to plot their daily experiences on a Life Course Chart that requires them to assign a value to the level of life satisfaction they experienced on each day. The maintenance of a daily journal is encouraged to record the significant events of each day. Group discussions of the students' charts and selected narratives will be a part of each class period.

< SELF-ASSESSMENT POST TEST >

Goals: Become more aware of positive roles they have played in the social and educational world and in the lives of others. Relate to others effectively.

Topic: Connect to Faculty—my responsibility to educate faculty about disability.
Connect to the University— my responsibility to educate University about disability.
Connect to the Community. How do we become models, mentors, resources (by feeling we can).

Journal Entry: How does inequality, unfairness, disability affect those around you and how does that in turn affect you (i.e. the pain my mom feels because of my disability).

Goals: Relate past experience to their present goals and expectations. Conceptualize my goals and dreams.

Topic: Motivation and Determination: Never give up on your goals and dreams

Topic: Quality of Life

Journal Entry: What quality of life means to me?

Topic: Employment and Housing

Journal Entry: My Summer Job

Topic: Life-long Education and Transitions

Journal Entry: How did you get here, i.e. teachers, parents, friends, spirituality (power beyond that gives great peace), and where are you going.

Goals: Develop critical and analytical skills.

Topic: Identify Problem solving processes.
Journal Entry: Identify a problem and use problem solving strategy to create solutions.

Goals: Provide supportive feedback to other persons with disabilities.

Topic: Relationships—Responsibility to self, others, community
Commitment.
Mentoring: What is a Mentor. How do I become a mentor.

Journal: Identify peer and interview or identify a role model and research.

< SELF-ASSESSMENT POST TEST >

Instructor outcomes of this consumer focused learning "life narrative" module will enable researchers to:

- Identify recurring issues related to effective support provision.
- Gather qualitative data on all of the above topics.

- Gain insights into the factors contributing to and impeding success in educational environments.

- Gain insights into factors contributing to internal locus of control and external locus of control.

- Compare the life course charts of students to identify key factors in life satisfaction.

- Build a foundation of trust with the students crucial to the success of modules, two and three which depend on high rates of disclosure regarding present challenges and aspirations for the future.

Grading

5 points • 5 points • 5 points • 5 points • 5 points

Journal Entry: It's my wonderful life (The World With(out) Me In It; What would my life look like without disability).

Journal Entry: How does the World Looks at me

Journal Entry: What is disability?

Journal Entry: Assess the weaknesses and strength in your communication process.

Journal Entry: How do I affect the world around me?

POINTS POSSIBLE: 25 POINTS

10 points • 10 points • 10 points • 10 points • 10 points • 10 points

Journal Entry: How does inequality, unfairness, disability affect those around you and how does that in turn affect you (i.e. the pain my mom feels because of my disability).

Journal Entry: What quality of life mean to me?

Journal Entry: My Summer Job.

Journal Entry: How did you get here, i.e. teachers, parents, friends, spirituality (power beyond that gives great peace), and where are you going.

Journal Entry: Identify a problem and use problem solving strategy to create solutions.

Journal Entry: Identify peer and interview or identify a role model and research. Present main ideas from findings.

5-POINT JOURNALS (5):	**25 POINTS**
10-POINT JOURNALS (6):	**60 POINTS**
ATTENDANCE AND PARTICIPATION:	**55 POINTS**
SELF-ASSESSMENTS (4)	**60 POINTS**
TOTAL POINTS FOR THE COURSE	**200 POINTS**

Letter Grade Based on Points Earned:

A	=	180-200 points
B	=	160-179 points
C	=	140-159 points
D	=	120-139 points
F	<	120 points

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PHASE II
STUDY PROPOSAL BRIEF #1

Brian Shaughnessy & JoAnn Yuen
(Submitted October 1, 2000)

University of Hawai`i at Manoa
National Center for the Study of Postsecondary Educational Supports (NCSPES)
A Rehabilitation Research & Training Center (RRTC)
Center on Disability Studies (CDS)

Title: ***An Intervention Study: Banking on Cultural Capital—Creating Value-added Learning for Persons with Disabilities in Postsecondary Education Settings***

Problem to be Addressed

Persons with disabilities face substantial challenges in postsecondary educational environments. Research suggests supports and services at the secondary school level—which are entitlements—are extensively developed; however, the extent to which effective and institutionalized supports are available at the post-secondary school level varies widely from institution to institution (NCSPE National Survey of Support Provision, 2000). Support mechanisms exist on college campuses, although with varying degrees of success, and programs may appear at-odds or uncoordinated because they compete among themselves for limited funds. Since the provision of these supports is not an entitlement as it is in secondary school, it is critical for students to be supported by their institution. Postsecondary students are not identified by an IEP and can remain invisible within a postsecondary environment, which makes it difficult to support students who do not seek out assistance. Research suggests that non-traditional students expect institutions to take the initiative in assisting them. In order to support invisible and non-assertive students, institutions need to reach students in the only place they are sure to be, the classroom. The original research brief proposed to create a self-determination or self-advocacy course for students with disabilities—a unique course with a separate and distinct curriculum. One course creates a small net in which to catch the

individuals who might benefit from this type of curriculum. This proposal is a revised conceptualization and suggests what is needed is to increase learning opportunities and reinforce the concept of self-determination/self-advocacy in different courses and departments. What we now propose is to create a method to retrofit existing courses and established curricula with the tools and strategies necessary to enhance a student's self-determination and self-advocacy skills. To accomplish this the research intervention will be directed at increasing a student's internal locus of control. As a result, teaching strategies and curriculum will be developed to elevate a student's "cultural capital."

Locus of Control (i.e., internal and external). Internal locus of control is important because it represents the sense of power students possess, or feel they possess, over their environment. External locus of control is just that, control that is provided by an external means (services, supports and training) in an attempt to empower students. The concern expressed by Hawaii consumers and practitioners is that colleges and universities cannot simply pour empowerment skills and self-advocacy skills into a student and expect a student's internal locus of control to blossom. Building an internal locus of control occurs over time, reinforced by one's ability to make perceptible differences in his/her own life and rewarded for having achieved these differences. Once the level of control over ones environment is internalized this transition creates a foundation to promote and develop self-determination and self-advocacy skills. Creating a sense of internal locus of control is not a simple matter because expectations may be low and subsequent reinforcements few and far between. The desire to go to school may be motivated by cultural and familial expectations, those external to the student, and in contrast internal motivations may be non-existent.

Cultural Capital. The term coined by Pierre Bourdieu, refers to the perception that certain forms of knowledge are elevated above others. Individuals and families most connected to mainstream social institutions, those possessing cultural capital, have a greater opportunity to assert their

linguistic and cultural competencies and shape the norm. Researchers suggest educational institutions value and maintain the knowledge and "culture" of the dominant group typically defined as middle-class whites. All other groups, lower class, minority, first-generation college students, and students belonging to the disability culture, may lack the "cultural capital" of the dominant group. "As a result [students] may feel alienated from the college experience because their know-ledge and viewpoints are not recognized, valued or celebrated. By ignoring non-dominant culture and knowledge, faculty [across departments] will only continue to promulgate students' low sense of worth and academic ability" (Makuakane-Drechsel, 1999). The challenge is to identify and develop strategies at the postsecondary level that honor the values and norms of the non-dominant group, acknowledge what students bring with them into the classroom, and encourage them to learn what they still need to know in order to succeed academically. Building cultural capital is empowerment. By empowering students we empower their colleges and universities and ultimately their employers.

What this study provides is an opportunity to test teaching and curriculum strategies in a for-credit classroom and teach more than subject matter and theory. This study is a challenge to other educators to push the envelope of teaching and empower students to change the way they look at their world, increase personal expectations, create action plans to meet challenges and continue to succeed outside the classroom.

Recruitment of Students

This study will support freshmen and sophomores attending the University of Hawai`i-Manoa. The following are options to reach out and engage students with disabilities:

- Collaborate with WorkHawai'i (City and County of Honolulu) who is awarding money to high school students to attend college. Working in tandem with WorkHawai'i the cultural capital could support and enhance the transition of secondary-level students to the postsecondary level.

- Collaborate with community colleges within the University of Hawaii system to aid in the articulation of students with disabilities from two-year to four-year institutions.

- Conduct a two-week summer mini-camp for incoming freshmen and transfers with disabilities. The short-course would provide a campus orientation, personal skills development, and mental preparation session.

- Collaborate with student support services and TRIO to support students and programs that support students with disabilities.

- Identify existing course requirements for graduation and adapt course(s) with self-determination and self-advocacy curriculum. For example, an existing entry-level course within the Communication Department could be used to create a foundation that could be retrofitted with self-determination/ self-advocacy strategies and tools.

Research Questions

- What type of secondary school preparation must students with disabilities have in order to successfully transition to the postsecondary level and succeed as advocates for their own educational supports?

- What skills do students with disabilities need to possess to successfully advocate for their own educational supports and subsequent workforce settings?

- What skills do students with disabilities need to possess to develop internal locus of control and increase cultural capital in postsecondary settings?

- What is the impact of a locus of control/cultural capital inter-vention during postsecondary education on the development of individual empowerment and self- advocacy skills in students with disabilities?

- How do internal and external "loci of control" relate to the outcomes of postsecondary students who have disabilities?

- How does capital culture relate to the outcomes of

postsecondary students who have disabilities?

Method Proposed to Address the Research Questions

The proposed intervention study will provide learning opportunities for students within the classroom, and research opportunities to better understand students with disabilities. The intervention will be designed, as a credit course for students with disabilities and the audience will be freshmen and students transitioning from community colleges. This quantitative and qualitative study will determine the education needs and the range of information required to adequately support students; and identify, develop and implement effective practices to assure that students with disabilities have the knowledge and skills necessary to advocate for their own educational successes.

The first quantitative instrument, a "self-awareness instrument," will be developed and administered prior to the determination of groupings. The instrument will provide an inventory of characteristics for students with disabilities entering postsecondary education and will enable researchers to identify the range of variables that influence the retention of postsecondary students who have disabilities. The self-awareness instrument will assess:

- Self-determination and self-advocacy skills;
- Self-awareness and self-esteem;
- Perceptions about postsecondary education;
- Knowledge and skills needed to successful navigate postsecondary education and employment settings; and,
- Transition skills and the ability to move between social settings and adapt to change.

The second quantitative instrument, an "internal locus of control assessment," will be developed and administered at the beginning and end of each intervention module (four administrations). The instrument will measure the effects of the intervention on self-awareness, self, esteem, self-determination, self-advocacy, and personal development among participating students. The instrument will measure pre- post-interval changes in four areas:

1. Attitudes, knowledge and understanding, and actions concerning one's own abilities and disabilities;

2. Self-awareness and self-esteem;

3. Knowledge of educational supports as they relate to accommodation needs; and

4. Ability to develop a range of skills and plan strategies to advocate for supports in postsecondary education and subsequent workforce settings

The qualitative method will also be used to understand the effect of the intervention by listening to the voices of students with disabilities. Case studies will be used in conjunction with life course charting. Life course charting will consist of autobiographical life narrative writings that describe student experiences, supports, challenges and successes in life and school settings. This process of self-assessment will provide insights into a student's perception of the past, present and future; and the factors shaping expectations and creating successes.

Overview of Phases and Timelines—August 2000 to August 2003

2. Phase I Activities Curriculum Development/Course Offered—October 1 to December 31, 2000

3. Quantitative and Qualitative Instruments—October 1, 2000 to December 31, 2000

4. Pre-test-January 2001; Post-Test 1-February 2001; Post-Test 2-April 2001; Post-Test 3-May 2001

5. Develop Curriculum—December 1, 2000 to May 31, 2001

6. Data Analysis and Write-up—April 30, 2001 to December 31, 2001

7. Products of the Intervention—July 1, 2001 to December 31, 2001

8. Products and Reports—January 1, 2001 to End of Project

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PHASE II
STUDY PROPOSAL BRIEF #2

(MS#017-H01)

University of Minnesota
Institute on Community Integration
Michael Sharpe & David Johnson

Longitudinal Analysis of the Experiences of Students with Disabilities with Postsecondary Support Provision: Characteristics of Effective Support Systems

Statement of the Problem

Results of the *National Survey of Post-Secondary Supports for Students with Disabilities* revealed a wide range of supports are currently being offered to postsecondary students with disabilities. According to survey results, availability and delivery of these services appear to vary with regard to institution "type" (e.g., 4 year vs. 2 year). Although it was observed that supports vary as a function of institution type, it is less clear the extent to which these differences impact outcomes of students. As intended, the survey was helpful in describing the current status of nature and range of supports available to students. However, no data was collected to examine consumer experiences within these service systems. Specifically, it is of interest to examine issues of consumer access, level of satisfaction, and perspectives regarding how such services are likely to effect employment objectives and other post-school outcomes. At present we do not know what the availability of supports (or lack thereof) impacts outcomes for students (e.g., "Does more necessarily mean better?"). Moreover, we do not have any information regarding what elements of support services are correlated with high levels of student access, satisfaction, and prospects for the future. Given the varying missions of institutions and the range of students with disabilities served, it is critical that we attempt to develop a better understanding of the components of supports services effectiveness.

The main purpose of this research effort will be to identify effective components of support services in relation to student outcomes. To accomplish this task, two basic research strategies will be employed: (1) an examination of student outcomes by conducting a "20/20" analysis of support service characteristics, and (2) an examination of input and process variables that lead

to the identification of effective components of support services.

As described by Reynolds (1993), 20/20 analysis is a method where we select a sample of the "top" 20%" and the "bottom" 20% of institutions representing high and low levels of support services according to national survey results. One objective of this research activity is to study how the range of support options available within various types of institutions impact student outcomes. That is, we are interested in knowing whether supports systematically vary as a function of institution type and the degree to which supports influence student outcomes. In addition, we are also interested in obtaining a broader understanding of effective components of service systems in general, relative to overall processes employed by postsecondary support service providers. Therefore, a second objective of this study will be to develop an empirically based model of services that can be used in the planning and implementation of support services programs that meet student needs from a variety of institutional missions.

Research Questions

Three basic research questions will be addressed in this study:

1. How does the availability of support services in various types of postsecondary institutions impact consumer perceptions of access, satisfaction, and anticipated postschool outcomes?
2. What are common characteristics of postsecondary support services that are most likely to result in high levels of consumer access, satisfaction, and positive perceptions of postschool outcomes?
3. What supports are considered most effective in terms of carryover to subsequent employment? Related sub questions include:
   (a) How are supports used in subsequent employment? and
   (b) How did postsecondary support service systems influence the types of supports used in subsequent employment?

Method Proposed to Address Research Questions

Design of the Study

A longitudinal, cross-sectional design will be implemented over a three-year period to study consumer experiences with various types of postsecondary support services. As indicated by Menard (1991), in addition to describing changes over time, the proposed longitudinal research design can be used "to establish the direction (positive or negative, and from Y to X or from X to Y), and magnitude of causal relationships." In this study, we will explore variation of services by institution type and the general relationship of how selected input and process variables influence consumer perspectives on access, satisfaction and postschool

outcomes. Variable specifications include:

Independent Variables

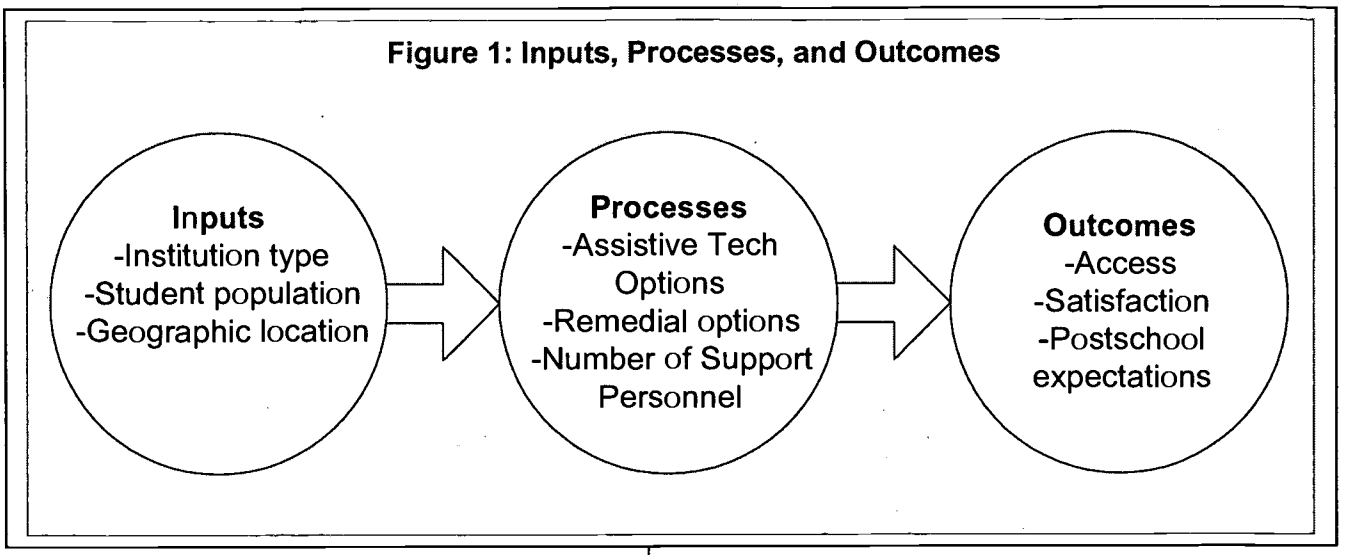
Input variables—"fixed" variables which postsecondary support services have little or no "control" over and include: (1) institution "type" (2-year, 4-year,), (2) student population, (3) geographic location.

Process variables—variables where we assume postsecondary support services have some "control" or influence over what is being done to address the needs of students with disabilities. This includes many of the items included on the national survey that provide descriptive information about the nature and range of supports available at a given institution including: (1) number of trained staff, (2) whether there is an advocacy organization on campus, (3) extent of faculty training efforts, (4) number and types of Assistive technology supports, and (5) skills development supports (study skills, organization and time management skills, etc.).

Dependent Variables

Outcome variables—outcomes presumably influenced by the interaction of inputs and service delivery processes. This study will focus on students' perceptions of access, satisfaction, and postschool prospects (employment, independent living, etc.).

As indicated, inputs and processes represent independent variables while outcomes will serve as the dependent variables of this study. The 20/20 analysis will employ process and outcome variables, while research tasks related to model building will utilize all three variable types. These variables, including examples of outcome variables are shown in Figure 1.



Description of Sample and Selection Process

This study will involve an annual sample of 375-900 student volunteers recruited from institutions that participated in the *National Survey of Post-Secondary Supports for Students with Disabilities.* The first step in obtaining the sample of student volunteers is to use national survey data to identify the "Top 20%" and the "Bottom 20%" of institutional "performers." In this case, we will scale items that were contained national survey data to select the top 20% of institutions that indicate substantial support services and conversely, the bottom 20% whose results reflected few services and supports. Items from the survey will be assigned standardized weights to facilitate the selection process and to identify optimal "cut-off" points.

Based on a strategy described by Reynolds and Zetlin (1993), "20/20 analysis" is an approach where one "looks at the margins" to assess programmatic outcomes. Once the top and bottom 20% of postsecondary institutions have been identified, a random sample of 25-30 institutions within each category will be drawn, stratified on institution type (e.g., less than 2-year, 2-year, and 4-year). Random samples will be drawn without replacement for each year of the study to help ensure that a wide variety of institutions will be eligible to participate in this study. For each institution selected, research staff will contact the lead administrator of the support services program to solicit their cooperation in the study. Upon Institutional Review Board (IRB) approval, each administrator will be asked to distribute surveys to 5-10 students with disabilities. Utilizing the most optimistic projections, samples size would

range from approximately 125 to 300 resulting in an annual sample of 625-1,800 students. At the conclusion of the Year 3, it is estimated that outcome data will be collected on approximately 1,875-5,400 students representing various types of disabilities and postsecondary settings. The sampling plan based on institution type is shown in Table 1 for Years 1-3.

Table 1: Sample Plan Based on "20-20" Analytic Framework and Institution Type (Years 1-3)

	Institution Type		
	4-Year	2-Year	Less than 2-Year
"Top 20%" Institutions	25-30	25-30	25-30
"Bottom 20%" Institutions	25-30	25-30	25-30

Protocol Used to Collect Data

A survey protocol will be developed to collect data from postsecondary students with disabilities. The protocol will be designed to address three specific outcome domains: (1) access to services, (2) satisfaction with services, and (3) anticipated postsecondary outcomes. Survey items will be developed that directly correspond to items contained in the national survey. It is anticipated that each survey will require about 15-30 minutes of the respondent's time. To help reduce any systematic bias in the distribution of surveys, institutional administrators will be informed that students will remain anonymous, nor will there be any attempt to identify specific institutions in any of the reports developed by research staff. Prior to dissemination, researchers at each consortium site will review the survey and will be field-tested with University of Minnesota students with disabilities.

Intervention to be applied

Year I

The data collected in the first year of the project will be used to provide an initial analysis of general relationships between disability service processes and student perceptions of outcomes. At this level of analysis, it will be of interest to examine whether "more" purported services necessarily result in higher levels of access, satisfaction, or positive perceptions of postschool futures. This analysis will also provide useful information to help assess the overall external validity of the *National Survey of Post-Secondary Supports for Students with Disabilities.* Another aspect of the Year 1 study will be to conduct a "20-20" analysis (Reynolds, 1993; Reynolds & Zetlin, 1993) to examine dependent variables related to access, satis-

faction, and anticipated futures between the top 20% of the institutions who obtained "high" scores on the national survey with those of the bottom 20%. This level of analysis will also focus on identifying programmatic discrepancies between institutional types and their relationship to student outcomes. In addition, a more general analysis will be conducted using student survey data obtained from all participating institutions to identify inputs and processes that are related to high levels of access, satisfaction, and positive perceptions of postschool outcomes. The purpose of this level of analysis will be to identify effective components of support services common to all types of postsecondary institutions and for subsequent research efforts aimed at model development.

Year 2

The research efforts described in Year 1 will be replicated in Year 2, but will be extended to begin the process of examining whether any trends can be detected based on 20/20 analysis results. Also, in the second year, researchers will aggregate the data of Years 1 and 2 to begin the process developing a model that provide information about inputs and process components of student support services programs associated with high levels of access, satisfaction, and perceptions of positive outcomes. Essentially, Year 2 analysis activities will be concentrated on the description of hypothesized components of "effective" services based on empirically defined relationships (e.g., regression methods).

Year 3

The research activities described in Year 2 will be extended to include data collected from Years 1 and 2 to conduct 20/20 analysis. Research staff will work with RRTC consortium staff to refine the process of model development and to identify trends in students' perceptions of access, satisfaction, and perceptions of postschool outcomes.

Data Analysis and Write-Up

Data analysis will include cross tabulation procedures to examine student survey results based on a variety of input and process variables and categories identified through 20/20 analysis. Descriptive statistics and multi-way cross tabulations will be used to examine outcome variables based on institution type, disability type, "year in school," and various other variables to provide a comprehensive description of the nature and range of supports relating to the needs of postsecondary students with disabilities. Various types of analysis (analysis of variance, Chi squares, etc.) will be employed to examine student survey results each year data is collected and across samples to identify trends. Multivariate analysis techniques, specifically ordinary least squares regression and logit analysis will be used to construct a model of postsecondary support services that leads to high levels of access, satisfaction, and perceptions of positive postschool outcomes for students.

A report will be developed for each year of the project detailing methods, procedures, and significant findings. The final report will describe a model of effective support services and will provide information regarding trends observed over the three-year period, along with recommendations about future research efforts that will help to enhance and further validate the model.

Products and Intended Audiences

The purpose of this effort is to develop an overall product that will help service providers and researchers better understand characteristics of postsecondary support services that are most likely to result in high levels of consumer access, satisfaction, and positive perceptions of postschool outcomes. It is anticipated that development of a model will facilitate program planning by helping to identify effective components of support services overall, and specifically, for various institutional types (e.g., 2-year, 4-year). This research activity will also serve as the foundation for future efforts to establish empirical relationships of input, process, and outcomes of postsecondary support services.

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Table 2: Work Planning Document For Phase II Study Proposal

	Task to be Completed	Person Responsible	Timeline	Product/Outcome
Development and Approval of Study Brief	Develop study proposal	Sharpe/Johnson	April, 2000	Study proposal
Set-up of Study Design & Method	Obtain national survey data set	Sharpe	May-June, 2000	Identify institutions for sample and 20/20 analysis
Conduct the Study (describe plan for pilot, implementation, replication)	Select random sample of institutions; contact program administrators; field – test surveys; disseminate surveys to students	Sharpe/Rosen	June-November, 2000	Year 1 student sample (similar outcome repeated for Years 2 and 3)
Analysis of Data or Information	Data entry; statistical analysis (cross tabulations; regression analysis)	Sharpe/Rosen	November-December, 2000	Year 1 data analysis summary (similar outcome repeated for Years 2 and 3)
Development of Products and Reports	Report of Year 1 research efforts and summary of analysis	Sharpe/Rosen	January-March, 2001	Year 1 report (similar outcome repeated for Years 2 and 3)
Conduct Training, TA & Dissemination	Disseminate results through written, oral presentations	Sharpe	March-April, 2001	Year 1 report (similar outcome repeated for Years 2 and 3)
Projected Costs (funded by the RRTC, leveraged from related projects and objective from partner or collaborating entity.	$50,000	Sharpe/Johnson	Ongoing	Project budget

Phase II
Study Proposal Brief #3
(MS#018a-H01)

University of Hawai`i at Manoa Center on Disability Studies
National Center for the Study of Postsecondary Educational Supports
A Rehabilitation Research & Training Center
John Anderson & Teresa Whelley

Documenting Effective Models of Educational Supports for Persons with Disabilities in Postsecondary Education and Subsequent Work Settings

Statement of the Problem

Postsecondary education has been shown to dramatically improve the rates and quality of employment for people with disabilities, but enrollment rates are 50% lower than those of the general population, which demonstrates a clear need to improve postsecondary access, retention, and completion for students with disabilities (Stodden & Dowrick, 2000). The first phase of research activities at the National Center for the Study of Postsecondary Educational Supports (NCSPES) were largely designed around identifying the nature and range of educational supports and services for students with disabilities, along with the factors that impact their availability (Stodden, 1998). Findings from these studies, including the national survey (NCSPES[1], 2000) and the national student focus groups (NCSPES[2], 2000) and indicated that the availability of such supports varies from school to school, that there may be additional supports needed as well as better coordination of existing services, and that utilization of these services depends on students knowing about and valuing them. Also, there are important natural supports that are not provided by postsecondary institutions or government agencies.

It is clear that the supports and services for students with disabilities in postsecondary settings are not equally effective and that some which could be effective are not always available. To better understand the effectiveness of available postsecondary supports and services, an important measure is the quality of student outcomes. What supports have actually helped people with disabilities to successfully complete a postsecondary education and subsequently obtain meaningful employment? One way to answer this question

is to locate such former students and find out, which supports contributed to their success (and if there were missing supports that would have helped). Since there is no definitive measure for student success, this study will examine a set of converging indicators of success and satisfaction, such as: course grades; access to classes; level of satisfaction with services and accommodations offered before, during and after postsecondary education; retention; successful graduation; subsequent employment; and personal factors including quality of life.

Study Methodology

This study will have two distinct phases. The goal of the first phase will be to locate informants for the second phase of the study; they will be people with disabilities who have successfully negotiated postsecondary education and subsequent work settings. Participants will mainly be postsecondary graduates, but this study would also include successful voluntary "exiters," who left school to pursue other opportunities. An effort will be made to include a range of students, such as those in vocational and certification programs. Researchers based at the University of Hawai'i RRTC will coordinate the study.

A brief questionnaire will be developed to identify the informants for the second phase of the study. This questionnaire will only be used to identify promising candidates for the second phase of the study, and will not be intended for further analysis. It will be designed to identify graduates and exiters who meet the criteria suggested by the indicators for success and satisfaction described above in the Issues §. This questionnaire will be sent to former students of several postsecondary institutions nationwide. Potential avenues for distributing the questionnaires so as to reach a wide range of informants include campus disability support services, Vocational Rehabilitation, alumni magazines, Internet groups, UAP staff and/or campus registrars' offices. Participating sites will include National Center for the Study of Postsecondary Education Supports consortium members and Office of Postsecondary Education project sites. A letter stressing the importance of participation, along with an incentive, will accompany questionnaires.

Five respondents will be chosen from those who complete and return the questionnaires to be informants for the main phase of the study. This study will utilize a qualitative sampling strategy for this selection process, wherein subjects are chosen to maximize the potential range of information to address the research questions (Lincoln & Guba, 1985; Guba, 1981; Glaser & Strauss, 1967); Guba (1981) notes that this is "sampling that is not intended to be representative or typical" (Guba, 1981),

in contrast to quantitative sampling methods. The group of candidates for this study will be selected partly on the basis of diversity in terms of both disability and postsecondary setting (e.g., 4-year, 2-year, and vocational), to include a broad range of experience and resultant data. Informants will also need to be selected on the basis of their geographic availability to the interviewers.

The goal for phase two of this project will be to build case studies of the selected informants through two interviews. These interviews will be designed to: (a) reveal and describe the supports that contributed to each student's success in college and in subsequent employment settings; (b) indicate the student's level of satisfaction with the services provided; and (c) elicit suggestions for improvement.

The first interview with each participant will be exploratory in nature, revealing topics for further discussion and establishing rapport between the interviewer and informant. A basic protocol will be developed for this interview using guidelines from the literature (Stiles, 1993; Schneider, 1991). The initial interview will be pilot tested with one informant, and necessary adjustments made to the protocol before conducting the remaining interviews. All interviews will be tape recorded (with permission of the interviewee), transcribed and notes taken on relevant nonverbal information. The researchers will then study the transcripts and notes from the discussions carefully, and a list of significant topics will be generated. This list will be used to sort transcript passages into categories, which will be based on content. Content categories will be examined for similarities and differences, and then grouped into themes, using the *constant comparative* method (Glaser & Strauss, 1967; Taylor & Bogdan, 1984; Stiles, 1993). A computer software program for qualitative data analysis will be selected to expedite and enhance the reliability of the analysis process (Fielding & Lee, 1998; Richards & Richards, 1994). Results will be offered to the informants for feedback and *testimonial validity* or *member checks*, wherein participants verify the accuracy of the researcher's interpretations and conclusions (Kotre, 1984; Stiles, 1993; Lincoln & Guba, 1985) The results of the first interview will then be used to determine appropriate topics for the follow-up interview —this more in-depth discussion will be uniquely tailored for each informant. A loose protocol will be used for each of the second interviews, but this will be individualized and the discussion will be largely open-ended. The second interviews will be conducted and analyzed using a process similar to that described above for the first interviews. Interpretations will again be offered to the informants, and then all results will be organized

into themes based on theoretical and practical perspectives.

A case study will be prepared and written up for each of the informants, taking care to maintain confidentiality (unless appropriate consent is obtained). Aggregate findings will be summarized across the case studies, and presented in context of the study.

Research Questions

- How effective, available and necessary are the supports and services for postsecondary students with disabilities
- How do the postsecondary supports and services carry over into the postschool transition to the workforce?
- What are the exemplary models of people with disabilities who have successfully negotiated postsecondary education and have obtained quality subsequent employment? How might these models help to guide and support current and incoming students?

Products and Intended Audiences

The main product of this study will be individual case studies or stories that will describe the experiences of successful postsecondary graduates (and voluntary exiters) around disability supports and services. These stories should be useful for incoming and current postsecondary students with disabilities, DSS personnel, faculty and instructors, VR personnel, and prospective employers. The findings regarding the effectiveness and importance of various supports and services would be useful for evaluation and determining specific variables for further research.

Work plan

Task	Person Responsible	Completion Date	Product/Outcome
Develop study proposal	Anderson, Whelley	Sep 2000	Study proposal approved
Develop questionnaire	Anderson, Whelley	Oct 2000	Questionnaire ready
Identify sites & distribution	Anderson, Whelley	Oct 2000	Distribution methods established
Select qual. analysis software	Anderson, Whelley	Nov 2000	Software selected
Develop 1st interview protocol	Anderson, Whelley	Jan 2001	Interview protocol determined
Distribute questionnaires	Anderson, Whelley	Feb 2001[1]	Questionnaires distributed
Collect questionnaires	Anderson, Whelley	Mar 2001[1]	Sufficient # collected
Select participants	Anderson, Whelley	Mar 2001	Five participants selected
Pilot initial interview	Anderson, Whelley	Mar 2001	Interview #1 pilot conducted
Trans. pilot & content analysis	Anderson, Whelley	Apr 2001	Pilot analyzed
Conduct remaining interviews	Anderson, Whelley	May 2001	Initial interviews completed
Transcribe & analyze interviews	Anderson, Whelley	May 2001	Interview #1 analyses completed
Develop topics for 2nd interviews	Anderson, Whelley	May 2001	Individual interview protocols
Conduct 2nd interviews	Anderson, Whelley	May 2001	2nd interviews completed
Trans. & analyze 2nd interviews	Anderson, Whelley	June 2001	2nd interviews analyzed
Prepare study findings brief	Anderson, Whelley	June 2001	Findings brief completed
Prepare presentations, article and other study products	Anderson, Whelley, RRTC team	July 2001	Presentations, article, other dissemination products

[1] Note that the initial projections for distributing and collecting the questionnaires have been changed due to difficulties in securing avenues of distribution that would reach the target population. Since the questionnaires were the basis for selecting study participants, this impacted the timeline for all subsequent activities.

Phase II
Study Proposal Brief #4
(MS#019-H01)

Virginia Commonwealth University
Rehabilitation Research & Training Center on Workplace Supports
Elizabeth Getzel

Effective Instructional Strategies and Supports for Students with Learning Disabilities in Postsecondary Education

Statement of the Problem

Although there has been an increase in the number of students with learning disabilities entering colleges and universities, limited numbers of students are completing their programs (Wille-Gregory, Graham, & Hughes, 1995). There are several factors that contribute to low retention and completion rates (Aune, 1991) that make it exceedingly challenging for these individuals to complete postsecondary educational programs. In many instances, students' unique needs go unrecognized or unmet (Aune, 1991; Reiff & deFur, 1992; Brinckerhoff, 1994). In other instances, students may be hampered by varying or limited support services, large student-instructor ratios, and limited direct student-instructor contacts that result in insufficient individualized attention (Stodden, 1999). Additionally, students with learning disabilities in higher education settings often face obstacles in the form of negative or prejudicial attitudes held by faculty members, administrators, and other members of the student body (Greenbaum, Graham, & Scales, 1995; West et al., 1993).

To help students with learning disabilities participate in higher education programs, three primary considerations emerge: obtaining detailed information on the unique characteristics of the students, developing specific educational interventions based on the students' characteristics, and providing information and support to students and teaching faculty on how to best implement effective educational strategies.

Research Questions to Answer the Problem

1. What is the range of educational supports needed by students with learning disabilities to successfully

complete their postsecondary education program?

2. What impact does faculty training have on implementing educational supports needed by students?

3. What are the critical institutional structures that need to be in place in order to meet the educational needs of students with learning disabilities?

4. What are the barriers for succeeding in a postsecondary environment as perceived by students with learning disabilities, and what strategies or accommodations do they believe work in overcoming these barriers.

Method Proposed to Answer the Research Question(s)

Because of the individualized nature of this study, developing and implementing specific educational supports for students with learning disabilities, the study requires a method which captures the individualized nature of the supports provided, yet provides information on a group of students who received intense educational assistance. Focus group procedures have been selected as the primary method for collecting information (Krueger, 1994; Marshall & Rossman, 1995; Wheeler, 1996). This method was selected because focus groups allow for a detailed, more in-depth process to collect information on the experiences of students with learning disabilities (Patton, 1990). Krueger (1994) provides a number of reasons supporting effectiveness of focus groups. He reports that focus groups are not only an effective way to obtain results from a small group of individuals, but they also provide an atmosphere for collecting information which is more relaxed and natural. Focus groups are more socially oriented with a structure that allows the facilitator the flexibility to explore unanticipated issues that emerge during the discussion.

Detailed case studies will also be used to document the specific educational supports and accommodations that were provided during the study. The case studies will help to illustrate the range of supports provided and how these supports were implemented.

To obtain information on the impact of the educational supports from a faculty perspective, two methods are proposed. One is a series of focus groups overtime to document what faculty believe have been their courses on an entire class of students. The second method will be to compare objective the impact of the teaching techniques or technology they have introduced into test scores of students attending a class where modifications and innovative teaching approaches were used. The test scores will be compared with a previous class in Year 1 and after the

first year with subsequent classes in Years 2 and 3.

Design of the Study

The study is designed to provide intensive educational supports to an intact cohort of students with learning disabilities during Years 1, 2 & 3. The number of students within each cohort will be 60 students. The students will be recruited within one to three months of their entering Virginia Commonwealth University. Academic Specialists, who are on staff at the RRTC on Workplace Supports, will work with these students to identify their specific educational accommodation needs and develop a Student Profile. These profiles will be updated throughout the course of the study. Students will be asked to participate during the length of the study to obtain longitudinal data on their academic career.

Once the profiles have been developed, students and the Academic Specialists will design an Academic Support Plan, which will enable students with learning disabilities to identify the supports that need to be in place. During each year of the project, a series of three focus groups will be held with the students to obtain detailed information on their academic experiences. As each focus group is conducted, research staff will be able to identify barriers, and provide support to overcome these barriers. At each group, the barriers and supports will be discussed to determine if the students were able to successfully overcome the barriers that they previously identified.

To compare the results of the students, the cohort will be divided between students who have received intensive services from project staff during the year and those who have received minimal assistance. Information will be collected on both groups to determine the impact of the intensive educational supports that were provided.

To obtain data on the experiences of faculty members, the research staff will recruit up to eight faculty members each year who teach large introductory courses where standardized tests are used. To recruit faculty members, research staff will first meet with the Dean from the School of Humanities and Sciences and the Provost and Vice President of Academic Affairs. Staff will discuss the project and ask for assistance in recruiting faculty. Incentives for participating will be discussed which could include release time for faculty and/or consulting time. Research staff will attempt to recruit through the Dean and by presenting at faculty meetings in the School of Humanities and Sciences.

Faculty members in the study will be provided supports and resources to

modify their coursework with the intent of achieving a more universal design in how their classes are structured. Faculty will be asked to participate in focus groups to discuss their successes and barriers to implementing new strategies or techniques. Research staff will provide assistance to help them overcome these barriers and document their progress over the course of the study. Additionally, comparisons over the years of standardized test scores will be used to document any changes in the performance of the students in these classes that received assistance. The intent of conducting the study in this manner is to obtain data on the effectiveness of universal design for both students with disabilities and their nondisabled peers.

Description of Sample and Sample Selection Process

The sample will consist of an intact group of 60 students with learning disabilities who have self-identified to the university and are interested in receiving intensive educational supports. During the course of the study it is anticipated that intact cohorts of 60 students will be recruited each year. The study is voluntary, so participants will be those students who express an interest in taking part. Students will be recruited through the Disability Services Office, the VCU Students with Disabilities Organization, and announcements posted on the university web sites and newspapers.

Instrument or Protocol Proposed to Collect Data

As previously described, there will be several methods used to obtain data. To capture the individualized supports and services provided, information will be collected through the students' Profile and Academic Supports forms. A primary method for gathering data on the impact of these supports on participating students will be through the use of focus groups. Satisfaction with the services provided and identification of additional supports will be documented through these groups.

Faculty members participating in the project will also participate in focus groups. The research staff will document their success with implementing universal design techniques and their perceptions of the impact on their teaching and their students' performance. Comparisons of standardized testing from year to year in classes of participating faculty will provide data on any changes over time in the performance of their students.

Data collection on the differences within the cohort of students (those who received intensive supports as compared to students who received minimal supports) will focus on such variables as grades, class attendance,

type of accommodations used, number of resources accessed on campus and in the community, and overall adjustment to college.

Description of Intervention to be Applied

The interventions for students with learning disabilities will be individualized to meet their specific needs. It is anticipated that students will be supported throughout their academic experience which could include such supports as accommodations in the classroom, academic advising, personal counseling, career planning, and access to Assistive technology devices. Academic Specialists will not directly provide all of the supports that students need, but will help to facilitate the services and supports students' need.

Faculty interventions will also be individualized as a result of the type of courses being taught. It is anticipated that the classes will be large introductory sessions in the School of Humanities and Sciences since over half of the students at VCU take classes in this school. Interventions could include information on structuring the material for more effective note taking on the part of students, the use of various technologies in the class to enhance the information being taught, and information on general teaching strategies to address the learning styles of all students.

Data Analysis and Write-up

Data will be analyzed using information from audiotapes, scribe notes, and transcriptions of tapes from each of the focus groups conducted (Benz, Johnson, Mikkelesen, & Lindstrom, 1995; Krueger, 1994). Summaries of each focus group will be developed including: 1) student participant information, 2) the point in time the group was conducted (beginning of the semester, etc.), 3) responses to the questions posed by the facilitator, and 4) information obtained through follow-up questions to obtain additional information during the sessions (Benz, et al., 1995). A similar procedure will be used to collect data from faculty members participating in the study in addition to comparing overall test scores of students in their classes.

Analyses comparing students within each cohort will be conducted each year. Comparison analyses will be conducted on the differences within the cohort of students (those who received intensive supports as compared to students who received minimal supports). Variables such as grades, class attendance, and type of accommodations used, number of resources accessed on campus and in the community, and overall

adjustment to college will be used in the comparison studies.

Case studies will be developed from the students' Profiles and Academic Support Plans to provide a more detailed and in-depth look at the specific educational interventions that were provided. The case studies will be developed based on composite information obtained through the study. Confidential information that would be recognizable to a student or a potential reader will not be used.

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Phase II
Study Proposal Brief #5
(MS#020-H01)

Children's Hospital/University of Massachusetts/Boston
Institute on Community Inclusion
Rehabilitation Research & Training Center on
Postsecondary Educational Supports for Students with Disabilities
Debra Hart

Trends in Postsecondary Education Services in the Vocational Rehabilitation System for Individuals with Disabilities

Statement of the Problem

A postsecondary education is one of the most significant ways in which an individual can increase their employability (NCES, 1999; U.S. Department of Labor, 1999; Roy, Dimigen, & Taylor, 1998; GAO, 1997). Educational attainment closely relates to lifetime earnings and economic self-sufficiency, two of the hallmarks of successful employment (Disability Rights Advocates, 1997; HEATH, 1996). Seventy-eight percent of high school graduates enter into some type of postsecondary education compared to 37% for individuals with disabilities (Blackorby & Wagner, 1996). For people with disabilities, these educational options — including full or part-time college, adult education, continuing education, and technical and/or vocational training — are critical. Unfortunately, when looking at admission to a 4-year college, students with disabilities are much less likely to be even minimally qualified to attend (NCES, 1999; Phelps & Hanley-Maxwell, 1997).

Several federal statutes mandate equal access to services at postsecondary education institutions and are intended to improve outcomes for individuals with disabilities (i.e., Individuals with Disabilities Act of 1997 (IDEA 1997), the Rehabilitation Act of 1995 and the inclusion of the Rehabilitation Act Amendments in the 1998 Workforce Investment Act, and the Americans with Disabilities Act). Therefore, it is critical to understand the impact that these laws have on assisting individuals with disabilities in gaining access to and in completing a postsecondary education and,

ultimately, in securing employment. In an effort to determine the impact these laws have had on creating greater access to, retention in, and completion of a postsecondary education a secondary data analysis will be conducted of elements of the national Rehabilitation Services Administration's (RSA) database to identify state trends in postsecondary education services and supports for individuals with disabilities overtime through the Vocational Rehabilitation System.

Research Questions to Answer the Problem

1. Has there been change over time in the services offered by the Vocational Rehabilitation system that support students with disabilities in postsecondary education?

2. What is the cost per case for postsecondary education services for students with disabilities?

3. Has the IDEA 1997,the Rehabilitation Act Amendments of 1995 and the inclusion of the Rehabilitation Act Amendments in the 1998 Workforce Investment Act had an impact on postsecondary education services for individuals with disabilities?

Methodology

- Design — secondary data analysis

- Overall Timeline — one year (July 1, 2000 – September 30, 2001)

- Description of Sample — Universe of closures for VR over a five-year period

- Data Analysis — Data will be analyzed from fiscal years 1991, 1993, 1995, 1998, and 2000. It is from these points in time that trends will be regarded. For each closure on the RSA-911 database there is a code related to which state it comes from, which allows for the data to be aggregated to the state level. Such an aggregation allows for easier handling of the data and eliminates the large sample bias of statistical testing.

- Repeated measures analysis of variance (ANOVA) tests will be used to perform all statistical tests to compare means from state to state over time. Time is used as the measure, i.e. the series of data, for all fifty states and Washington, DC, defined by the years 1991, 1993, 1995, 1998, 2000; the majority of tests rely on all five points of time. State averages will be reported in text; national totals will be recorded

in table format. An alpha of .01 will be used as the significant cutoff level.

- Products — Table 1 details the products that will be produced as a result of the proposed research and the target audience. Table 2 details the work plan for the proposed study.

Table 1. Products & Audience

Product	Audience
Monograph	NIDRR, RSA, VR, Office of Post-secondary Education (OPE), Educators, Advocacy Groups
Journal Article	NIDRR, RSA, VR, Educators, Advocacy Groups
Research-to-Practice Brief	NIDRR, RSA, VR, Advocacy Groups
Presentations at two national conferences (e.g., AHEAD, AAMR, CEC, TASH, PAC RIM)	Educators, Adult Service Providers and Agency Personnel, and Advocacy Groups

Table 2. Work plan

Task	Person Responsible	Timeline	Product / Outcome
Develop template & format for data analysis	Hart & Gilmore	July - September	Format for data analysis completed
Secure RSA data for 1998 & 2000	Gilmore	October 2000	Data sets across years 1991, 1993, 1995, 1998, 2000 are complied
Conduct data analysis	Gilmore & Bose	October 2000 - December 2000	Draft report completed
Draft report submitted for review (e.g., Project Advisors, Stodden, & several VR Directors)	Hart	January 2001 - February 2001	Review completed & feedback incorporated
Complete Monograph, Journal Article, & Research-to-Practice Brief	Hart & Gilmore	February 2001 - September 2001	Monograph, Journal Article, Research-to-Practice Brief completed
Disseminate Results	Hart	March 2001 - September 2001	Monograph, Journal Article, Research-to-Practice Brief, & Presentation at two national conferences

PHASE II
STUDY PROPOSAL BRIEF #6

(MS#021-H01)

University of Hawai`i at Manoa Center on Disability Studies
National Center for the Study of Postsecondary Educational Supports
A Rehabilitation Research & Training Center
Tom Harding & Chuan Chang

Secondary Data Analysis of Promising Educational Support Practices for Students with Disabilities as found in Two-Year Postsecondary Settings

Study Overview

Over the past twenty years changes in the nation's labor market have increased the importance of postsecondary education in order to be able to compete in the labor market. Whether it is college, adult and continuing education, or technical preparation, postsecondary education plays a major role in preparing persons for employment and career opportunities. Students who continue their education after high schools maximize their preparedness for careers in today's changing economy as they learn the higher order thinking and technical skills necessary to take advantage of current and future job market trends. Yet youth within special populations have often experienced limited access to and success in postsecondary education programs, resulting in poor employment outcomes.

Given the increasing need for youth within special populations to be able to succeed in postsecondary education programs in order to be able to access and participate successfully within the workforce, it is imperative that we understand the availability and use of educational supports in postsecondary programs and subsequent employment environments. During the past 15 months, the National Center for the Study of Postsecondary Educational Supports conducted a national survey of educational support provision, across a large range of four and two year postsecondary programs. The national survey focused upon the provision of supports for a targeted population, students with disabilities. The

survey database includes information on a wide range of supports, including academic, technological, career/vocational, community and related agency coordination, and the use of mentors and other supportive roles. Initial analysis of the national database indicates that two-year postsecondary schools, especially those with a vocational/technical focus, provide significantly more educational supports for students with special needs than other postsecondary institutions. Initial analysis points to the significant value of two-year postsecondary programs to support the diverse needs of students from special populations, contributing to their success in life-long learning and employment.

The national survey has yielded a rich data source for further analysis of data specific to two-year postsecondary programs and their status in the provision of supports to youth with disabilities and other special needs. A more in-depth analysis and reporting of the national survey data with a focus upon the provision of supports within two-year postsecondary programs (including those with vocational-technical programs), could answer several important questions of relevance to researchers concerned with the success of students with special needs in career and technical education, as well as subsequent employment. Research questions include:

- What are the types of educational and career supports offered to students with disabilities and other special needs in two-year postsecondary programs?

- What types of technology and web-based supports are offered to students with disabilities and other special needs in two- year postsecondary programs?

- What types of career assessment and planning supports are offered to students with disabilities and other special needs in two-year postsecondary programs?

- What types of community and employer linkages and supports are maintained and offered for students with disabilities and other special needs in two-year postsecondary programs?

- How do two-year postsecondary programs (with and without a vocational-technical focus) compare in the provision of supports for students with disabilities and other special needs with four-year postsecondary programs?

- What are the issues and concerns for two-year postsecondary programs when providing supports to students with diverse and special needs?

Proposed Project Method

The proposed study will seek to answer the listed research questions by conducting a secondary analysis of two-year institutional data from a national survey conducted this past year at NCSPES. The study will involve the following work scope:

1. Review and conduct an analysis of the demographics pertaining to the two-year institutional sample within the national survey database.

2. Conduct a secondary analysis of the two-year institutional data from the national survey and review findings for areas of significance.

3. Conduct further in-depth analysis of the data in areas of significance to determine contributing factors and provide further clarity to the status of educational support provision in two-year postsecondary institutions, as compared to other types of postsecondary programs.

4. Summarize all information generated through analysis with recommendations and implications for (1) further research to be conducted, (2) policy changes that might further the status of educational support programs in two-year postsecondary institutions, and (3) practice implications for service and support providers working in two-year postsecondary institutions.

Products

Three products will be developed as a result of this study proposal. The products would be developed in collaboration with The National Research Center for Career and Technical Education at the University of Minnesota for dissemination through the networks of both involved programs. The three proposed products include:

- Ten or more "Findings Briefs" sharing targeted information from the secondary analysis of data concerning two-year postsecondary support provision to youth with disabilities and other special needs.

- An Executive Summary report focused upon policy implications produced for distribution to key federal policy makers.

- A Comprehensive Report of the current status of educational support provision for students

with disabilities and other special needs in two-year postsecondary programs (emphasis upon programs with a vocational-technical focus)

Staffing

- Dr. Robert Stodden, Director of NCSPES at the University of Hawai`i at Manoa will direct and supervise the project (contributed time).
- Two research assistants (Mr. Tom Harding and Ms. Chuan Chang) currently involved with the national survey database will conduct the required analysis and participate in the writing of report documents.
- NCSPES collaborating researchers will contribute significant expertise and staff support to the development of projected products and dissemination activities within existing national networks.

Timeframe

The timeframe for the proposed project is July 1, 2000 – December 31, 2000. Data set-up and analysis will occur during the summer months and review/input and report writing tasks will occur in the fall and early winter months. Master discs of all products will be provided with a minimum number of hard copies.

PHASE II
STUDY PROPOSAL BRIEF # 7

(MS#022-H01)

Improving the Quality of Higher Education Programs
for Students with Disabilities
Ohio State University, Collaborative Site
Margo Izzo

Promising Practices Resulting in Improved Programs and Studies

Statement of the Problem

Results of the National Survey of Postsecondary Educational Supports for Students with Disabilities revealed that a wide range of supports are being offered through disability support offices in postsecondary education programs. Further, findings, based upon the voices of students with disabilities who participated in a series of National Focus Groups, revealed that a number of factors, beyond the provision of educational supports, contributed to their success in postsecondary education and subsequent employment. Those factors included:

- Negative attitudes and lack of knowledge by faculty members concerning the diverse attributes and needs of students with disabilities,
- Lack of coordination of supports and services with faculty instruction, related services provision and other campus activities available to all students,
- Lack of coordinated information or advocacy supports for students with disabilities.

Research Questions

1. What are the characteristics of promising program models being implemented by the 21 demonstration projects funded by the Office of Postsecondary Education?
2. What types of professional development activities the program models are implementing?

3. Who are the critical stakeholders involved in model project implementation?

Method

Exploratory Pilot Study: During Phase I of the Strategic Plan of Research for the RRTC on Postsecondary Educational Supports, an exploratory pilot study was conducted with a sample of 18 postsecondary programs to determine a viable means of identifying promising educational programs and practices and measures of effectiveness and outcome. The pilot focused upon (1) type of institution/program, (2) types of innovative/promising program models and practices, and (3) types of effectiveness and outcomes measures and data collected. Findings from the pilot study supported the assumption of researchers that (1) a range of innovative or promising program models or practices are available, and (2) measures of effectiveness can be identified and validated with program and student outcomes, as well as other satisfaction measures.

Design

During the past year the United States Department of Education, Office of Postsecondary Education (OPE) selected twenty-one postsecondary programs for funding to demonstrate innovative and promising models of faculty and institutional development, resulting in improved program and student outcomes. Each of the twenty-two funded projects was selected as a promising program model or practice, providing a potential, database for study across the projects. Also, each of the project programs has the potential to generate data on the effectiveness of model or practice characteristics and to assess program and student outcomes.

Analysis

A framework will be developed to describe the characteristics of promising practices underway within the 21 projects. Five criteria proposed by Peters and Heron (1993) are considered to be the best to yield a reliable, valid and critical program description. They are (a) the practice is well grounded in theory: (b) the practice is supported empirically through studies that are internally and externally valid: (c) the practice has some underpinnings in existing literature; (d) the practice is associated with meaningful outcome; and (e) the practice is socially valid. In addition consumers will validate emerging promising practice through a focus group consisting of postsecondary students with disabilities. This procedure, of validating findings with consumers of the research will establish Participant Action Research. Through the research,

then writing and review process, each practice will be continually validated from the perspective of the consumer as participant.

Implications for Training

- Promising program practices can be taught to postsecondary faculty and support personnel.
- Students as self advocates may take this information and use it independent of direction.
- All stakeholders need to be made aware of promising practices.

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Peters, M. T. & Heron, T. E. (1993). When the best is not good enough: An examination of best practice. *The Journal of Special Education, 26,* 371-385.

Work plan

October 1,1999 to June 1, 2000	Collection of Data on Promising Practices from Office of Postsecondary Education Research Sites
June 1 to September 30, 2000	Data Analysis including matrix of promising practices
November 1, 2000	Draft article for Disability Support Quarterly
January 1, 2000	Research Brief for National Center on Study of Postsecondary Supports
April 1, 2000	Presentation and results distributed at Pac Rim

PHASE II
STUDY PROPOSAL BRIEF #8
(MS#023-H01)

University of Hawai`i at Manoa Center on Disability Studies
National Center for the Study of Postsecondary Educational Supports
A Rehabilitation Research & Training Center
Katharina Heyer

Comparative Analysis of Disability Policy

Statement of the Problem

Legislating Disability Rights and Implications for Students with Disabilities in Postsecondary Education

Disability policy in advanced industrial nations is in a state of transformation and change. One of the major causes for this change is the emergence of an international disability rights movement. This new movement represents a shift from what disability theorists term the 'medical model,' which understands disability as physical imperfection best addressed through medical cures and rehabilitation, to a 'social model,' which focuses on civil rights, social discrimination and stigma. International organizations such as the United Nations have recognized this movement through human rights proclamations and policy recommendations.

With the passage of the 1990 Americans with Disabilities Act (ADA) the United States has become a model of such a disability rights approach, which interprets disability as a civil rights issue and mandates anti-discrimination and equal opportunity. This rights model, embraced by most common law countries (the U.S., Canada, New Zealand, Australia, and Great Britain) stands in contrast to a more traditional quota model, dominant in most civil law countries of Europe and East Asia. This model aims for equality of results through the use of employment quotas and emphasizes special needs over equal rights. The two models impact disability policy very differently: for example, when applied in educational settings the policy differences may be contrasted in the form of separate specialized schools and integrated learning, whereas when applied in employment settings, the policy differences may be contrasted as

anti-discrimination mandates and employment quotas.

These two approaches to disability policy are grounded in opposing legal principles: notions of equal rights (anti-discrimination) are considered incompatible with notions of special needs (quotas). The United States approach to disability civil rights is based on pre-existing civil rights law, just as the American disability rights movement is modeled on the civil rights movement. Yet, it has become a model for European and Asian countries working to expand their quota approach with anti-discrimination legislation based on the ADA. Since approaches to disability policy are deeply embedded in political and social norms and approaches to social welfare legislation, it is important to monitor the effect of the American civil rights approach on other countries with different policy legacies, histories, and attitudes towards disability rights. We must also monitor how the American equality model engages with notions of difference and special needs as new approaches to disability rights develop.

Research Questions

1. What is the impact of the rights model on disability policy and activism of countries that subscribe to the quota approach?

2. What is the impact of different models (rights or quotas) on postsecondary education and employment policies and outcomes?

3. Can models of equal opportunity blend with those that mandate equal outcome?

4. How does an introduction of "American-style" rights consciousness and anti-discrimination legislation politicize disability movements?

Methodology

- Collect data on disability policies in all major European and Asian countries. There is comparative study of EU countries (Thornton, 1996) that will serve as a model for this project.

- Identify disability scholars and legal/policy experts in each country (to be completed at the Law and Society conference in Miami and the Disability Studies meeting in Chicago scheduled for Summer 2000. Work has been underway to establish good connections to scholars and activists in Germany and Japan).

Reporting of Results

A white paper will be prepared and shared with policy experts familiar with the development of the ADA and other US disability civil rights policy. Bobby Silverstein (past Director of the US Senate Disability Policy Subcommittee) and Jonathon Young (White House Policy Liaison) have expressed interest in responding to the comparative analysis. The responses of the two experts will be published with the white paper.

The paper will serve as the basis of a discussion at the Postsecondary Summit to be held in Washington DC during the Summer of 2002 – several panels of persons with disabilities and policy experts (both US and other countries) will be asked to speak to the analysis and make recommendations for future policy in-relation to students with disabilities and postsecondary education and employment in the United States

Phase II
Study Proposal Brief #9
(MS#024-H01)

University of Hawai`i at Manoa Center on Disability Studies
National Center for the Study of Postsecondary Educational Supports
A Rehabilitation Research & Training Center
Jean Johnson

Examination of the Status of the Inclusion of Students with Developmental, including Significant Cognitive, Disabilities in Post-secondary Education Settings

Statement of the Problem

Thus far, concerns for post-secondary supports for students with disabilities have primarily focused on those students who met institutional criteria for admission, but because of their disabilities, required supports and services to enhance the likelihood of their success in post-secondary programs.

Little attention has yet been paid opportunities for those students with significant developmental disabilities, including cognitive disabilities, to participate in post-secondary educational programs, nor to programs to encourage them to become life-long learners. These students would not meet the usual admission criteria to matriculate in vocational or community college programs. Many community colleges accept a high school diploma or GED for admission. Many of these students receive a certificate of completion of high school rather than a diploma.

When their eligibility under IDEA ends at the age of 21, many of these students, anywhere along the continuum from mild to moderate disabilities, lack continuing opportunities for inclusion with their age-peers in living, learning, and social activities. Self-determination at the age of 21 provides few choices when post-secondary educational opportunities are closed to them and job opportunities are very limited. Many of these young adults spend their post-high school years sitting alone at home, or if they have jobs, work only a few hours a week.

With almost no funding at the federal level and lack of enthusiasm at the local level, the persistence of some families has resulted in some successful matriculations of students

with significant cognitive disabilities in post-secondary colleges. A national survey has identified a very few pilot programs underway in several states to expand opportunities for students with significant developmental disabilities.

Questions to be Addressed

- What is the literature on promising post-secondary program models and practices for students with significant developmental disabilities?
- Have any model projects been funded at the federal level to support the inclusion of students with significant developmental disabilities in post-secondary institutions.
- If there are current successful program models in place, what are the characteristics of the programs and the institutions with inclusive post-secondary programs for students with significant developmental disabilities?
- What are the characteristics of the students who have matriculated in those programs?
- What kinds of course work has been available for those students?
- What are the measures of "effectiveness" to be applied to measuring student outcomes?
- How does the inclusion of students with significant developmental disabilities in post-secondary programs enhance the likelihood of their successful subsequent employment?
- What policies and recommendations are appropriate to further expand opportunities for the inclusion of students with developmental disabilities in post-secondary educational programs?
- What are the research questions that need to be answered to encourage an expansion of opportunities to this population?
- Identify the requirements to establish a model program to demonstrate successful inclusion of students with significant developmental disabilities at the local level.

Method

Exploratory Pilot Study: During Phase I of the Strategic Plan of Research for the RRTC on Post-Secondary Educational Supports, a national survey was conducted to identify whether any post-secondary community college programs were providing inclusion opportunities for young adults with significant developmental disabilities. About a half-dozen programs were identified in various states. Only one program,

"Post-secondary Education: A Choice for Everyone Program," at the University of New Hampshire UAP was identified that has received any federal funding. That program has just completed the second year of a two-year grant.

A number of individual parents were identified who have personally navigated the system to create opportunities for their son or daughter to participate in a college learning experience.

Currently no database exists on what is happening across the nation, what is working and what is not working. No policy agenda exists to expand opportunities for these young adults to provide choices for self-determination and to encourage them to become life-long learners.

Phase I Activities (June 1 – October 1, 2000):

1. Conduct a literature search individuals with significant developmental disabilities who have successfully matriculated in post-secondary institutions and on past program models and practices.

2. Identify any federally funded programs that may have provided services to this population.

3. Further identify (who are not included in published literature) current programs and families who have achieved a successful placement (without federal support).

4. Produce a summary document summarizing the state-of-the-art related to the inclusion of students with significant developmental disabilities in post-secondary educational programs.

Phase II Activities (October 1 – March 31, 2002)

1. Write an article for publication in a professional journal summarizing the current status, policy and research needs for the inclusion of students with significant developmental disabilities in post-secondary institutions.

2. Develop an Advisory Panel to include young people with significant cognitive disabilities, parents, and professionals who have or are operating successful post-secondary programs for students with significant developmental disabilities.

3. Bring the Advisory Panel together for a two-day national meeting to review the state-of-the-art; to identify unmet research needs, to define model program characteristics, and to generate policy recommendations.

4. Facilitate the broader discussion of this topic at four national meetings of disability groups.

5. Establish a research project to address the unmet research needs identified by the Advisory Panel.

6. Develop a model demonstration project (in Hawai`i) based on the model program characteristics.

7. Facilitate the inclusion of the Advisory Panel policy recommendations into local, state, and federal policies.

8. Produce three articles for publication in professional journals.

Phase III (April 2 – September 30, 2002)

1. Facilitate a meeting of the Advisory Panel to assess status and make recommendations for further expansion of supports for students with significant developmental disabilities into post-secondary educational settings.

2. Present to state and federal agencies identified research, policy, and funding mechanisms needed to further the development and expansion of model projects.

Proposed Budget Framework

1. Personnel and Fringe

   Coordinator (Johnson ?)
   Contributed (?)

   Graduate Assistant (.5 FTE)

2. Travel and Meeting Support for Advisory Panel
   $15,000

3. Materials and Printing of Products
   $ 3,000

Indirect costs

Total

Phase II
Study Proposal Brief #10
(MS#025-H01)

University of Hawai`i at Manoa Center on Disability Studies
National Center for the Study of Postsecondary Educational Supports
A Rehabilitation Research & Training Center
Jennifer Graf, Katharina Heyer, & Robert Jahier

Analysis of Recent Policy and Other Federal Directives as they May Benefit Persons with Disabilities in Postsecondary Education Settings

Statement of the Problem

The recent passage of federal policy and the development of new directives (WIA, Ticket to Work, SSA directives) concerning preparation and employment of persons with disabilities could lead to changes in the manner in which students with disabilities are supported in postsecondary education and other life-long learning opportunities leading to subsequent employment. At this time it is unknown what impact this new policy will have on students seeking to participate in postsecondary education and other life-long learning opportunities. There is a need to review the new policy and conduct an analysis of those policy components that might impact upon the participation of student with disabilities in post-secondary education.

Preliminary Areas of Review

A preliminary review of the WIA has yielded the following six areas of policy for further analysis and clarification:

1. Eligibility of Training Providers

A key principle of the 1998 Workforce Investment Act is the streamlining of services through the integration of multiple employment and training programs at One-Stop service centers. Another principle is the empowerment of individuals with information and resources to manage their careers through Individual Training accounts (ITA) to allow maximum customer choice in their training providers.

The statute does not specifically outline the criteria by which training providers are selected. Are traditional postsecondary institutions automati-

cally included in the ITA? There is a need for clarification of selection criteria to ensure that students with disabilities wanting to pursue higher education career goals are not denied this choice.

2. Disability Representation on Local Workforce Investment Boards

State and local Workforce Investment Boards play an important role in the development of Workforce Investment Plans. The statute mandates Board membership to include at least one member representing each One-stop partner, and two or more members representing categories described in the WIA, including "organizations representing individuals with disabilities." WIA regulations do not, however, mandate a membership seat for each category of entities listed in the statute. Should state and local Workforce Investment Boards be directed to include representation of people with disabilities?

3. Psed Representation on Local Workforce Investment Boards

In addition to the need to ensure the representation of people with disabilities on state and local Boards we need to consider representation of including postsecondary education institutions. To ensure equal opportunity, self-determination and economic self-sufficiency - all key principles of federal disability policy - students with disabilities should be encouraged to strive for higher educational goals leading to high-end employment and lifelong learning. Thus, state and local Workforce Investment Boards should be directed to include representation of postsecondary education institutions.

4. Performance Accountability

A key provision of the Workforce Investment Act is state and local accountability for the performance of the workforce system. Training providers and their programs must demonstrate successful performance and customer satisfaction to remain eligible to receive funds. For the adult program, state performance indicators include entry into employment, retention, earnings, and educational or occupational credentials. Local workforce investment areas are subject to the same indicators, in addition to additional indicators the Governor may select. Local performance indicators should therefore include both 'career advancement' and 'improved quality of life' to further the achievement of higher education goals and lifelong learning for students with disabilities.

5. Disability Awareness Issues

The purpose of the WIA is to create a national workforce preparation and employment system to improve workforce quality and reduce welfare dependency. This statute serves the

need of all job seekers, including people with disabilities. To ensure that people with disabilities have universal access to this new workforce system and are able to participate freely, there is a need for a directive mandating disability awareness training for training providers and all persons participating in One-step programs.

6. Youth Programs: Self Advocacy Training

The WIA creates Youth Council to serve the needs of low-income youth ages 14 to 21 who meet at least one of six barriers to employment and youths with disabilities. The design framework for local youth programs must provide preparation for postsecondary education programs, among others, and provide linkages between academic and occupational learning. For youth with disabilities, self-advocacy training is an essential component of as well as pre-requisite for academic and occupational learning. There is a need for a directive mandating disability self-advocacy training for youth with disabilities by age fifteen. The outcome of such training would yield adults with disabilities able to understand their disability rights and advocacy needs in the workplace.

Preliminary Method

1. A research team will conduct a search for documents and reviews concerning recent federal policy impacting upon the education and employment of persons with disabilities (partially completed).

2. An analysis will be conducted of all information gathered to determine those sections of federal policy that might impact upon persons with disabilities seeking supports to participate in postsecondary education and life-long learning, including supports for subsequent employment.

3. Based on the analysis, raise a number of issues or questions requiring clarification or directive.

4. Share the issues and questions with a group of policy experts (Bobby Silverstein, Sue Swenson, Pat Morrissey, Jonathan Young & others) through an online focus group discussion. This discussion will generate new insight and clarification to be applied when implementing the new policy

5. Each issue or question area will be written up with responses and feedback appropriate to different audiences concerned with the implementation of the new policy and as it impacts students with disabilities seeking supports within postsecondary education.

Projected Products/Outcomes

1. Series of Discussion Briefs targeted to different audiences

involved in postsecondary education and life-long leaning/employment.

2. Document to be published in a professional journal or other appropriate outlet.

Phase II
Study Proposal Brief #11
(MS#026a-H01)

University of Hawai`i at Manoa Center on Disability Studies
National Center for the Study of Postsecondary Educational Supports
A Rehabilitation Research & Training Center
John Anderson

Accessibility of Postsecondary Distance Education for Students with Disabilities: An Analysis of Policy and Practice in the California State Community Colleges

Statement of the Problem

Issue

Postsecondary education is increasingly a prerequisite to obtaining quality employment as the demand for highly educated and skilled workers rises in the U.S. People with disabilities are at a disadvantage for obtaining both postsecondary education and employment, but employment rates go up dramatically as education level rises (Stodden & Dowrick, 2000). One of the four areas of study at the National Center for the Study of Postsecondary Educational Supports, towards the goal to improve access and remove barriers to postsecondary education for students with disabilities, is to identify promising technologies, to find barriers to their provision and adoption, and to explore policy and practice to overcome those barriers (Stodden, 1998)

Distance education is a rapidly growing phenomenon that has the potential to increase postsecondary-level access and participation. In the U.S., the numbers of courses offered and people enrolled in them both doubled in the three-year period from 1994-95 to 1997-98 (National Center for Education Statistics, 2000). The main reason for this phenomenal growth is that internet-based instruction can remove geographical and physical barriers to postsecondary education, with the promise that people can learn "anytime, anywhere." Distance education can reduce or eliminate certain disability-related barriers, including sensory, mobility, learning and psychological issues; this can increase access to postsecondary education for people with disabilities (Child, 1989; Paist, 1995; Burgstahler, 1995).

However, distance education raises a new set of issues: students need to have access to the appropriate technologies; student

services may not be widely available; and, faculty will need technological support. Moreover, some disabilities require the use of adaptive technologies to access distance education media. As web-based instruction grows, educators should note that 98 percent of all Internet websites are not fully accessible to people with disabilities (McGrane, 2000). Access to postsecondary education is an ethical and a legal issue (Woodbury, 1998) that has been guaranteed for people with disabilities by both federal and state governments. The Americans with Disabilities Act of 1990 mandates that people with disabilities be provided with equal access to all public programs—this includes educational programs offered on the Internet.

Policies and procedures developed for traditional modes of educational delivery need to be scrutinized and, if necessary, modified or replaced before they are applied to distance education practices. In recognition of these different needs, new and more stringent standards of national accreditation are being developed for postsecondary distance education (Carnevale, 2000). Equal and effective access to distance education for people with disabilities must be ensured, adapting the existing approaches as necessary, or the opportunity to obtain a postsecondary education through distance learning may be denied to those who could most benefit. This concern was voiced by the US Department of Education's Office of Civil Rights (OCR) in a letter to the California Community Colleges Chancellor's Office (CCCCO): "Little attention is being given to ensure that these distance learning programs are accessible to students with disabilities, especially students with visual impairments." (CCCCO, 1999).

Postsecondary institutions are beginning to address the need for equity in distance education. The California Community Colleges (CCC's) recently adopted the *Distance Education: Access Guidelines for Students with Disabilities,* delineating the college system's policy and describing specific accessibility practices (CCCCO, 1999). This policy offers a high standard of accessibility: "[T]he issue is not whether the student with the disability is merely provided access, but the issue is rather the extent to which the communication is actually as effective as that provided to others" (CCCCO, 1999). These efforts in California to provide equal access to distance education for students with disabilities - if successful - could offer a model for other systems of postsecondary education.

Questions for Analysis

- What expected effects will the CCCCO distance education policy have on improving access to postsecondary education and successful outcomes for people with disabilities in the CCC system?

- How will progress be measured?
- What are the main issues concerning the accessibility of postsecondary distance education courses for students with disabilities in the CCC system?
- How will necessary supports and accommodations be provided in CCC distance learning courses to meet the standard of equally effective communication for all students?
- Will faculty be responsible to ensure distance learning course accessibility?
- Is this a promising strategy to meet the accessibility goals?
- How might a better understanding of distance education accessibility policy and practice in California's community college system help increase postsecondary access and success for students with disabilities?

Study Plan

The first step is a careful analysis of the accessibility of distance learning in the CCC system. This will involve a review of available literature, reports, data, student experiences, and other relevant information. The primary issues are expected to include student access to technology, provision of supports and accommodation, effectiveness of course materials and communications, and enrollment.

Next will be an analysis of the CCCCO policy on the accessibility of distance education: the potential impact of these guidelines for students and faculty, the process by which they will be implemented, and methods by which their effectiveness will be evaluated. Relevant documents, articles, and data will be analyzed to address these questions. CCC experts and faculty will be contacted to contribute their experiences, expectations, and concerns regarding this issue. At this point, policy goals and implementation issues will be scrutinized, using applicable tools and procedures suggested by Hargrove (1975), Berman and McLaughlin (1978), and Pressman and Wildavsky (1973). This analysis will use methods including the *triangulation* of information from multiple sources and the testing of interpretation by expert verification to enhance validity (Stiles, 1993).

A report will be prepared, summarizing the results of this study and offering recommendations on the policy regarding the accessibility of distance education in the CCC system. A nationally recognized expert in postsecondary distance education for students with disabilities will help to guide the analysis and to prepare the final report. These findings may prove useful both locally, as the policies are implemented and assessed, and nationally, by sharing promising practices - and potential difficulties - to help guide other postsecondary distance

education providers to address the needs of students with disabilities. The report will be of interest to postsecondary student disability service providers, students with disabilities, technical staff, faculty, administrators, and others who are working on the development of postsecondary distance education.

Work plan for Study 11

Task	Completion Date	Product/Outcome
Develop study proposal	Oct 2000	Study proposal approved
Review articles, reports and data on distance education accessibility in CCC	Dec 2000[1]	Initial findings
Review documents and articles on CCCCO distance education policy and guidelines	Jan 2001[1]	Initial findings
Contact/question local CCC experts and faculty	Feb 2001	Contact information
Analyze information collected on distance education policy and practice in CCC	Mar 2001	Analysis completed
Prepare draft of findings report	April 2001	Report draft
Submit report draft for expert validation	May 2001	Expert feedback
Complete final findings report	May 31, 2001	Final report/findings brief

[1]The data collection phase for these tasks was extended beyond the dates in the initial work plan for this study. The timeline for all subsequent tasks has been adjusted accordingly.

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Phase II
Study Proposal Brief #12
(MS#027a-H01)

University of Hawai`i at Manoa Center on Disability Studies
National Center for the Study of Postsecondary Educational Supports
A Rehabilitation Research & Training Center
Weol Soon Kim-Rupnow

University of Washington DO-IT Project
A Collaborative Site
Sheryl Burgstahler

Impact of the Internet and other Support Activities on Higher Education and Employment Outcome of Students with Disabilities

Statement of the Problem

Many young people with disabilities often report feelings of rejection and isolation. The impact of social isolation is far-reaching, affecting not only friendships, but also academic and career success (Hawken, Duran, & Kelly, 1991). Ultimately, people with disabilities experience higher unemployment rates and lower earnings (McNeil, 1997; National Center for Education Statistics (NCES, 2001).

As the end of high school approaches, so does the termination of a structured environment and pre-college support systems (Burns, Armistead, & Keys, 1990). When compared to people without disabilities, people with disabilities are less prepared to meet the challenges of adulthood, more likely to continue to live with their parents after high school, and engage in fewer social activities (Moccia, Schumaker, Hazel, Vernon, & Deshler, 1989). Students with disabilities are rarely encouraged to prepare for challenging fields such as science, engineering and mathematics, and they are less likely to take the courses necessary to prepare for post-secondary studies in these areas (Burgstahler, 1994; Malcom & Matyas, 1991; National Science Foundation, 1997).

Although higher education can enhance their employability and vocational success, fewer young adults with disabilities participate in post-secondary education and, of those who begin such programs, disabled students are more likely than non-disabled students to drop out of school prior to completion (DeLoach,

1992; Moccia et al, 1989; Wagner, 1989). Adolescents with disabilities who wish to attend college are often faced with responsibilities they are unprepared to meet because they are conditioned to depend on others, and they lack self-advocacy and independent-living skills (Transition summary, 1988). Those enrolled in college often hesitate to request the specific accommodations they need (Amsel & Fichten, 1990).

The levels and types of resources available to students with disabilities change as students move from pre-college programs to post-secondary campuses and to employment situations, and programs to help bridge the gaps between these critical stages are rare. Students with disabilities can benefit from interactions with peers and adults with disabilities who are pursuing and participating in academic and career activities that they might otherwise have thought impossible for themselves. However, they are often isolated by great distances, transportation and scheduling challenges, communication limitations, and other obstacles that make it difficult for them to meet and interact in person (Aksamit, Leuenberger, & Morris, 1987; Brown & Foster, 1990).

The need to provide access to mentors and adult role models for students with disabilities is well documented. Computer-mediated communication (CMC), where people use computers and networking technologies to communicate with one another, can connect people separated by time and space who might not otherwise meet. The removal of social cues and social distinctions like disability, race, and facial expression through text-only communication can make even shy people feel more confident about communicating with others. Young people can learn in ways that people learn best - through sharing information, questioning information, verbalizing opinions, weighing arguments, and active learning (Harasim, 1990). Although proximity is critical to developing peer and mentor support in most settings (Stainback, Stainback, & Wilkinson, 1992), the Internet provides a medium that has the potential to build and sustain human relationships over great distances. Adaptive technology makes it possible for anyone to participate in computer-mediated communication regardless of disability. The combination of CMC and other in-person support has the potential to improve the postsecondary and career outcomes for young people with disabilities (Burgstahler, 1997; Burgstahler, Baker, & Cronheim, 1997; D'Sousa, 1991; Kay, 2000; Pemberton & Zenhausern, 1995; Stephenson, 1997). Research is needed to identify the long-term impact of CMC and other supports.

Questions to be Addressed

- What is the impact of various aspects of a model program

that supports computer-mediated communication (CMC) with peers and mentors, on-campus summer study programs and other supports on the transition of high school students with disabilities to higher education and employment?

- How can other programs apply the successful practices developed in this model program in order to improve academic and career outcomes for students with disabilities?

Method

An exploratory study, building on earlier work (Burgstahler, 1997; Burgstahler, Baker, & Cronheim, 1997), is being undertaken to examine the role that CMC, summer study programs, and other support activities can play in easing the social isolation and advancing the academic and career goals of students with disabilities.

Design of the Study

Participants

DO-IT (Disabilities, Opportunities, Internetworking, and Technology), winner of the President's Award for "embodying excellence in mentoring underrepresented students and encouraging their significant achievement in science, mathematics, and engineering," is directed by Sheryl Burgstahler at the University of Washington and primarily funded by the National Science Foundation (NSF), the U.S. Department of Education, and the state of Washington. DO-It programs, funded by NSF, work to increase the participation of students with disabilities in academic programs and careers in science, engineering, and mathematics (SEM). DO-IT Scholars, college-bound high school students with disabilities interested in SEM from throughout the country, meet face-to-face during short live-in summer study programs at the University of Washington in Seattle. DO-IT Scholars then communicate year-round with each other and adult mentors and access information resources via the Internet. A wide range of disabilities is represented in the group, including mobility impairments, hearing impairments, visual impairments, health impairments, and specific learning disabilities.

Data

In the first phase of this study, follow-up data will be collected from previous DO-IT Scholars through an e-mail questionnaire to investigate long-term impact of CMC, summer studies, and other DO-IT activities on post-secondary education and employment outcomes.

The activities for the second phase include writing up a report (full-length journal article), research findings briefs, two conference presentations, and one grant proposal for an intervention study built upon this study.

Products and Intended Audiences

The purpose of this study is to help service providers and researchers better understand characteristics of Internet support services that are most likely to result in high levels of consumer access and satisfaction in postsecondary education and employment. It is anticipated that analysis and refinement of a transition service model will facilitate program planning by identifying effective components of Internet use and support services overall.

- *see* **Work Plan** attached for specific products.

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WORK PLAN FOR STUDY #12

This study is running behind the projected timeline due to delay in obtaining approval from Human Subject Committee at the University of Washington. The first approval (received at the beginning of November) was needed to release DO-IT data to a new researcher, Kim-Rupnow at the University of Hawaii. The second approval (still pending as of March 28, 2001) is needed before mailing out the survey questionnaire. Another reason for the delay was that it took longer for us to develop, revise, and get consumer feedback on the in-depth survey instrument.

In the meantime, we have developed and revised the follow-up survey questionnaire reflecting consumers' input (see attached survey at the end of this work plan). We also updated the literature review in the areas of Internet support and exemplary transition support programs. We presented our research in progress and preliminary findings from the literature review in a presentation entitled, "Exemplary transition support model: DO-IT," at Pac Rim 2001 Conference in March. In addition, our proposal on "Impact of the Internet on higher education and employment outcome of students with disabilities" has been accepted to present at AHEAD Conference to be held in July 2001. At AHEAD Conference, we anticipate that we will be able to present the findings from the survey data analyses (see the revised work plan below).

Task to be Completed	PERSON RESPONSIBLE	TIMELINE	PRODUCT/OUTCOME
Development and Approval of Study Brief	Kim-Rupnow, Burgstahler	Sept, 2000	Study Proposal
Set-up of Study Design & Method			
• Obtain codes, e-mail as data base/SPSS file, and descriptions of codes & participants	Burgstahler	Nov, 2000	Approval to release DO-IT data to Kim-Rupnow
• Develop follow-up e-mail questionnaire	Kim-Rupnow, Burgstahler	Jan. 2001	Questionnaire
• Get human subject approval for follow up	Burgstahler	Mar, 2001	Approval for follow-up
• Set up data base structure	Kim-Rupnow, GAs		D-base
• Assist with literature review	Kim-Rupnow, GAs		Conference Presentation (Pac Rim)
• Contact participants	Burgstahler	Apr, 2001	e-mail survey completed
• Send e-mail questionnaire	Burgstahler		
• Collect e-mail responses	Burgstahler		
• Summarize responses	GAs	June, 2001	Coding completed
• Complete coding	GAs GAs, Kim-Rupnow		Data entry completed

• Enter data & begin analyses	GAs		
Analysis of Data	Kim-Rupnow, GAs with input from Burgstahler	July, 2001	Data analyses completed
Development of Products & Reports	Kim-Rupnow, Burgstahler	Sept., 2001	Report (article format), Findings briefs
Conduct of Training, TA, & Dissemination	Kim-Rupnow, Burgstahler	July, 2001 Oct., 2001 Dec., 2001	Conference presentation (AHEAD) Journal article submitted Grant proposal for an intervention study completed

DO-IT PARTICIPANT SURVEY

As a DO-IT Scholar, you have been involved in an exciting and successful program of Internet communication with peers and mentors, on-campus Summer Study programs, and other activities. We would like you to provide us with a perspective of the project that only you possess by completing the following survey and returning it, within one week, to DO-IT research staff at archive@u.washington.edu Randomly selected participants will receive a $20 gift certificate from Amazon.com.

This survey is designed to assess the impact that participation in DO-IT has had on your life, and to evaluate the value of specific program features. As part of the dissemination efforts of DO-IT and the National Center for the Study of Postsecondary Educational Supports, the results of this survey will be used to help programs nationwide better understand characteristics of activities that result in success in postsecondary education and employment. Dissemination and refinement of the DO-IT model will help us deliver programs that are worthwhile. Please take the time to read the entire survey, reminding yourself of aspects of the project and reflecting upon your memories of it as a whole, before you complete it.

Note that responding to the survey or any of the following questions is optional. Answer as few or as many questions as you like. Refusal to answer any questions will not affect your participation in DO-IT. Only the research staff will see your individual responses. When reported, your responses will be combined with others and you will not be identified. Individual quotes may be preserved in data summaries but your identity will not be disclosed. If you choose not to complete the survey, please reply to this message and say "I do not want to participate."

Please remember that sending electronic mail is similar to sending a postcard: while unlikely, it may be possible for others to view the contents of your message. Contact DO-IT Research Coordinator Deb Cronheim (206) 685-3648 or debc@u.washington.edu with any questions you may have about this survey.

Thank you.

Personal Information

Please type your response immediately following each question or place an "X" beside the appropriate multiple-choice item.

1. What is your gender?

a. Male
b. Female

2. What is your age?
a. below 18
b. 18-20
c. 21- 23
d. 24-26
e. over 26

3a. In which city and state do you currently reside?
3b. In which city and state did you reside when you were first admitted to the DO-IT Scholars program?

4a. What is your primary disability?
4b. What are your academic strengths? (list up to 3)
4c. What are your personal strengths/talents? (list up to three)

5. Have you graduated from high school?
a. yes
b. no (If "no", skip to #7).

6a. How many years of postsecondary education or formal training have you completed since high school?
a. less than 1 year
b. 1-2 years
c. 3-4 years
d. 5-6 years
e. more than 6 years

6b. What are (were) your primary/major areas of study? (list up to three)

6c. Which postsecondary academic degree(s) or certification(s) have you earned? (Indicate all that apply).
a. Vocational Certification
b. Two-year Associates degree or equivalent
c. Bachelors degree
d. Masters degree
e. Other, please specify

7. What type of job do you eventually wish to have as a career goal? (list up to three)

8a. Are you currently employed?
a. yes
b. no (If "no", skip to #9).

8b. How many hours per week do you work?
a. 0-10
b.11-20
c. 21-30
d. 31-40
e. Over 40 hours

8c. How long have you been employed at your current job?
a. 0-6 months
b. 7-12 months
c. 1-2 years
d. Over 2 years

8d. What is your job title?

8e. What is your hourly wage?
a. under $7
b. $ 7 - 10
c. $11-15
d. over $15

8f. How would you rate your current job? (Indicate one item)
a. Very unsatisfying
b. Okay, but still looking for another job
c. Somewhat satisfying
d. A good job that is on the career path I am pursuing
e. A very satisfying job that I hope to continue

8g. What skills have helped you to get your current job? (Indicate all that apply)
a. Social skills (networking with friends & adults, etc.)
b. Internet skills (job searching & information sharing, etc.)
c. Computer skills (programming, using database, etc.)
d. Academic skills (high G.P.A., postsecondary degree, etc.)
e. Other, Specify

9. What are the three most influential reasons that motivate you to pursue postsecondary education degrees or certificates? (academic interest, commitment to family, social life, good job, etc.)

10. What are the three most influential reasons that motivate you to eventually secure employment? (pursuit of independent living, contribution to social changes, financial security, helping other people, incentive plans such as retirement plan and medical insurance, etc.)

DO-IT Program

Summer Study Programs on University of Washington (UW) Campus.

11a. Rate the importance of the following Summer Study activities in terms of its influence on your own personal, academic, and/or career development, on a scale of 1 to 5 where 1 = not valuable at all, 5 = extremely valuable, and n/a = not applicable.
a. Computer and Internet use (e-mail, Web searching, etc).
b. Face-to-face interaction and developing relationships (dorm activities, evening programs, etc.).
c. College preparation (meeting professors, lectures, labs, student services presentations, workshops, etc.).
d. Career preparation (resume-writing, etc.).
e. Follow-up year-long project.

11b. Rate the value of Summer Study programs in developing the following three specific areas:
a. social skills.
b. academic skills
c. career/employment skills

Year-Round Computer and Internet Activities

12a. Rate the importance of the following year-round computer and Internet activities in terms of its influence on your own personal, academic, and/or career development, on a scale of 1 to 5 where 1 = not valuable at all, 5 = extremely valuable, and n/a = not applicable.

a. Access to home computer (assistance with cost of computers, free Internet, technical consultants, etc.)

b. Access to adaptive technology. Please specify the adaptive technology you're currently using:
c. On-line communication with peers (DO-IT Scholars and other young people)
d. On-line communication with adult mentors (DO-IT Mentors, staff, and other caring adults)
e. Access to information and resources on the Internet

12b. Rate the value of computer and Internet Activities in developing the following three specific areas:

a. social skills
b. academic skills
c. career/employment skills

Other DO-IT Scholar Activities

13. Please rate the importance of the following in terms of its influence on your own personal, academic, and/or career development, on a scale of 1 to 5 where 1 = not valuable at all, 5 = extremely valuable, and n/a = not applicable.

a. Internship at Summer Study
b. Panels and conference exhibits
c. Other. Specify:

Changes in You as a Result of DO-IT Participation

14. On a scale of 1 to 5 where 1 = very low, 5 = very high, and n/a = not applicable, rate your level of the following characteristics/skills at three times in your life: a) before your involvement in DO-IT; b) immediately after your first DO-IT Summer Study; and c) now.

14a. Internet skills (on-line related; e.g., e-mail, web search)
i. Before DO-IT
ii. After 1st Summer Study
iii. Now

14b. Computer skills (excluding Internet skills)
i. Before DO-IT
ii. After 1st Summer Study
iii. Now

14c. Scholastic interest and participation
i. Before DO-IT
ii. After 1st Summer Study
iii. Now

14d. Interest in science, math, engineering, technology
i. Before DO-IT
ii. After 1st Summer Study
iii. Now

14e. Interest in college
i. Before DO-IT
ii. After 1st Summer Study
iii. Now

14f. Perception of career options
i. Before DO-IT
ii. After 1st Summer Study
iii. Now

14g. Career/employment skills
i. Before DO-IT
ii. After 1st Summer Study
iii. Now

14h. Independence
i. Before DO-IT
ii. After 1st Summer Study
iii. Now

14i. Perseverance
i. Before DO-IT
ii. After 1st Summer Study
iii. Now

14j. Self-esteem
i. Before DO-IT
ii. After 1st Summer Study
iii. Now

14k. Social skills
i. Before DO-IT
ii. After 1st Summer Study
iii. Now

14l. Self-advocacy skills
i. Before DO-IT
ii. After 1st Summer Study
iii. Now

15. What has been the greatest impact of DO-IT activities on your life?

16. What other program activities do you recommend that DO-IT undertake to help young people with disabilities enhance their social, academic, and/or career skills?

17. Additional comments:

This completes our survey. Thank you for your participation! Your answers will help DO-IT and other programs plan the very best activities for young people with disabilities.

Phase II
Study Proposal Brief #13
(MS#028a-H01)

University of Hawai`i at Manoa Center on Disability Studies
National Center for the Study of Postsecondary Educational Supports
A Rehabilitation Research & Training Center
Teresa Whelley & Jen Graf

University of Washington DO-IT Project
A Collaborative Site
Sheryl Burgstahler

The Role of Families of Students with Disabilities in Postsecondary Education

Statement of the Problem

Youth with disabilities have been educated in increasingly inclusive settings for the past 25 years. During the past 15 years there has been an array of many school-to-work programs funded by the federal government. Concurrently, transition to work is a priority of Rehabilitative Services as stated in the 1992 Rehabilitative Amendment (PL 102-569). Yet youth with disabilities complete public education and enter uncertain futures. A survey commissioned by the National Organization on Disability (1998) concludes that only 29% of persons with disabilities of working age are employed full or part-time as compared with 79% of those who don't have disabilities. Of people with disabilities who are not working, 72% report that they would prefer to have a job. One avenue to secure better skills and higher wages is higher education and the enrollment rates for students with disabilities are increasing (Stodden, 1998).

Students with disabilities are often not prepared in many ways to enter college. One way is that SWD's have not had the opportunity or the skills to advocate for themselves in secondary school. Legally, parents have mandates under IDEA to direct curriculum, placement and supports until SWD's are 18 years old or exit public school. Students are confronted with many different expectations as they enter postsecondary educational institutions. They are expected to make choices of colleges and courses, and need to negotiate their own supports. Their experience during the transition year from high school to college does not give them the right to direct their education. Then during the fall of that

same year, SWD's have the full right and responsibility to identify and negotiate all of their accommodations. Students with disabilities who participated in the National Focus Groups (NCSPES, 2000) found the array of supports conflicting and wanted the system of supports to be more coordinated.

Where are these postsecondary aged students with disabilities? Too often at home, dependent upon their families. The time when children become youth is called the launching period. It is a time when typical families have decreasing parental responsibilities and youth grow in social and financial independence (Suzel & Keenan, 1981). Families of youth with disabilities often encounter an increase in their responsibilities during the launching period. Students with disabilities have lower employment rates and lower attendance rates in postsecondary institutions, and are often at home and isolated. This situation, a mismatch with the typical family, often leads to family stress (Dunst, Trovette & Deal, 1994; McCubbin & Patterson, 1983). There are other conflicts during the launching period. Antidotal evidence suggests that students perform better when parents advocate for them during secondary school (S. Burgstahler, personal communication, September 21, 2000). At the same time, SWD's in postsecondary institutions sometimes feel over protected by their parents. Although as with all consenting adults past the age of 18, parents cannot obtain information from postsecondary disabled support services or other organizations. SWD's want assistance in the use of the conflicting system of supports found at the postsecondary level (NCSPES, 2000).

Research Questions

What are the experiences and perceptions of students with disabilities, family members of students with disabilities and Disability Support Coordinators regarding the role of family members in providing supports to students with disabilities in post-secondary education?

1. What are the discrepancies among the experiences and perceptions among these groups?
2. What role don't parents/family play?
3. In which functions do students with disabilities need assistance?
4. Who provides each type of assistance and support?
5. How should supports and assistance be coordinated?

Study Method

It is clear that the role of families during the launching period is conflictual and confusing. To better understand the role(s) of families during postsecondary education, an exploratory design using focus groups is proposed.

Part I.

Focus groups are designed to reveal multiple perspectives and are best suited to address questions that inform or assess policy and practice (Brotherson & Goldstein, 1992). The information produced in a group discussion format will be richer, more complete and more revealing than that which can be obtained in individual interviews, surveys, or questionnaires (Bertrand, Brown & Ward, 1992). Initially, the Committee on Human Studies at the University of Hawaii at Manoa and University of Washington will review this study. SWD's, family members and disability support coordinators (DSCs) will be recruited through Disability Support Centers on campuses and community agencies will be asked for informant nominations.

Sampling

Three groups of informants will be chosen; one group, the students themselves; one group, the family members of SWD's from postsecondary institutions and the third group Disability Support Coordinators from postsecondary institutions. Informants will be identified in three ways. First, the Participant Advisory Team for Hawaii will be asked to nominate informants. Second, their referrals to community agencies will be accepted. And finally, informant nominations will be solicited from Disability Support Services Offices. This strategy is not intended to be representative or typical in contrast to quantitative sampling methods but broad to reveal multiple perspectives. A group of 5 to 15 informants will be selected from the nominations and meetings scheduled.

Data Collection

Permission for research on human subjects will be obtained from The Human Subject Research Committee at the University of Hawaii at Manoa. Consent for the study will be obtained from the informants. Disability Support Coordinators will be recruited through the Association on Higher Education and Disability (AHEAD) .The interview will take place in a comfortable room and refreshments will be provided. An experienced facilitator and recorder will be chosen from the NCSPES network. The facilitators at each site will increase the reliability of the study by using the same list of probe questions. The dependability of the study will be validated by repeating the questions with each group- family, student or disability support coordinator. The Focus Groups will be audio taped and there will be a written recorder.

Data Analysis

Part I.

The data from the focus groups will be brought to the University of Hawaii at Manoa and entered into a qualitative analysis computer program, Ethnograph.

A content analysis of the data will be completed using a constant comparative method yielding themes (Glaser & Strauss, 1967). A second researcher will again analyze the data and comparisons of findings will be generated; this will increase trustworthiness or validity of the findings. The computer program, enhancing replicability, will record an audit trail of the findings, themes in this analysis. A report of the findings will be generated.

Part II.

The University of Washington: Do-it Project has an established network of parents who are connected by the Internet. Some of these are parents of students with disabilities in postsecondary institutions. Do-it staff will choose informants from this group who have children in postsecondary education or who are graduates. In keeping with the spirit of participant action research (PAR), the report of findings from Part I will be posted on-line and parents will be asked to validate the findings by reporting their reactions on-line. These reactions will be sent electronically to the University of Hawaii at Manoa where they will be entered into the computer analytical program, analyzed for themes using a constant comparative method by a researcher and then a repetition of this process. All of the data will be analyzed together, with member checks and searching for grounded theory, salient themes and potential variables (Miles & Hubberman, 1994).

Products

It is anticipated that several products will result. A poster presentation, and a presentation at a national conference will distribute the findings to a select audience. A research brief and journal article will further the distribution. The findings will assist disability support coordinators, parents of SWD's, the students themselves, high school teachers and administrators in understanding and guiding the parent's in appropriate directions of support of the SWD's.

Work Plan

October 1, 2000	Research Brief Submitted.

Rationale for extending workplan: The population of Disability Support Coordinators is small in Hawaii. As a result of the island location, the possible sample group has developed long-term relationships and interacts frequently. The possible participants seem to think alike. This phenomenon of groupthink coupled with the resistance to participate in research that does not seem to be directly profitable for their job responsibilities, has prompted the researchers to look elsewhere for disability support coordinator participants. The director of AHEAD has given us access to her group at a national conference to be held in late July.

January, 2001	Obtain Human Subject Research Approval Schedule Focus Groups Identify Focus Group Facilitators
January 15, 2001	Coordinate the collection of data through Focus Groups Meetings
August 1, 2001	Focus Group findings due at the University of Hawaii at Manoa
August 22, 2001	Content Analysis completed on focus group meetings Findings Report to UW
October 1, 2001	Findings validated by UW Do-it parents
September 30, 2001	Findings brief Journal Article or web posting
Nov. 2001	National Presentation

Phase II
Study Proposal Brief #14
(MS#059a-H01)

University of Hawai`i at Manoa
National Science Foundation & Center on Disability Studies
National Center for the Study of Postsecondary Educational Supports
A Rehabilitation Research & Training Center
Richard Radtke

An Ocean of Potentiality: Inclusion Of Persons with Disabilities in Science, Engineering, and Mathematics

Statement of the Problem

Persons with disabilities are underrepresented in science, mathematics, engineering, and technology (SMET) careers, frequently to the detriment of the vitality of the United States' participation in scientific and technical enterprises. This situation is exacerbated by low career expectations for persons with disabilities among students, parents, teachers and administrators. (Cunningham & Nobel, 1998; Jones, 1997; Steven, 1996; & Raloff, 1991).

Students with disabilities are seldom advised or encouraged to prepare for occupations in science, engineering, and mathematics. Many children and youth with disabilities do not regard a vocation in science, engineering, or mathematics as achievable. Often, in a form of "self fulfilling prophesy", they do not select the necessary subjects in junior and senior high school and community college to prepare for higher education in these fields. Students with disabilities, families, school counselors, teachers and even special education teachers frequently lack an awareness of the make-up and requirements of science, engineering, and mathematics programs in higher education. Furthermore, there is often a lack of knowledge of the technology (including Assistive technology) and other "accessible" resources that would make it practicable for students with disabilities to pursue science, engineering, and mathematics careers (Burgstahler, 1992).

Students with disabilities often lack access or knowledge of role models who are successful in the careers in which they are interested. The lack of interaction between students with disabilities (Stevens *et al.* 1996) and role models can often lead to low aspirations and motivation to achieve success in science, engineering and math. Students with disabilities

are often separated from potential role models by obstacles of transportation and geography (Heidari, 1996; Noe, 1988; & Smith & Jones, 1999) (a particularly acute situation on our Neighbor Islands), leaving such individuals isolated from a community of colleagues and peers.

Proposed Project Work scope

Research Objectives

The goals of the Ocean of Potentiality Project are 2-fold: first, to tangibly support targeted youth with disabilities in Hawaii to envision and prepare for careers in science, math and engineering; and second, to carefully evaluate project activities and outcomes to identify the strategies that work (including appropriate Assistive technology supports and the barriers that need to be overcome in order for Hawaii's schools to prepare all youth for careers in science, math and engineering. The first goal relates to "direct service" -- whereas, the second goal focuses on "systems change".

1. Support schools to initiate "inclusive", exciting, globally connected Science activities.

2. Share the findings of the project with educational planners and concerned citizens.

Method

Data will be gathered regarding pre-intervention and post-intervention student attitudes toward career plans, academic goals and expectations, interest level in science related activities, willingness to engage in problem solving and project-based activities, and measurable levels of self esteem. Methods will include on site-observations, student/teacher satisfaction ratings, interviews, follow-up surveys, interviews and performance surveys. Follow-up data will also be gathered through one of the project's two websites: an interactive website promotes continued long-term contact with project mentors through chat-room venues and solicits student participation in videography projects—the Through the Viewfinder segments on the site are 90% student produced. Approximately 30% of students who have participated in camps have become re-involved in related activities through the website. While the project is only in it's third year of funding, preliminary data suggest that students are inclined to increase levels of involvement in school-based science activities as a result of involvement. Several older students have reportedly enrolled in related subjects at the community college level.

Camps include youths aged thirteen through mid twenties experiencing a diversity of disabilities. The program establishes at least a one to one mentor to student ratio--higher for

difficult cases such as youths experiencing depression, or demonstrating hostility. Mentors are drawn from various backgrounds, including the military, education, science related fields, other professions, family and friends; many are returning volunteers. Past student experiences have included conservation activities with Fish and Wildlife; tide-pool exploration; beach geology--effects of erosion; kite design; taro patch work, and a cattle ranch excursion. Access to technology--an important aspect of camps--includes a full computer lab with twenty computers, peripherals—scanners, photo imagery, digital and video cameras, and a computer exploration—tear down experience. All camps include a community service component, for example a beach clean up and community dog wash for elderly and disabled Hansen's disease survivors at Kalaupapa.

The evaluation plan will involve two major activities: impact assessment as outlined above and monitoring of the implementation process. Examples of data to be gathered under implementation will include: reports on preparatory activities; preparation of curriculum and teaching materials; identification of target population at the school level; criteria for selection; dissemination of information; etc.

Products

Proposed products include:

- Raise public awareness statewide regarding disability perspectives in SMET career preparation at professional and parent/consumer conferences.
- Policy paper and curriculum guidelines on matters in the state affecting access to science, mathematics, engineering and technology for students with disabilities. It is hoped to advance at the state level practices to make the science, mathematics, engineering and technology curriculum and materials accessible to students with disabilities (e.g., ocean and stream science activities that lend themselves to inclusive education; materials in alternative formats, including descriptive narration, captioning, and electronic text; appropriate Assistive Technology supports for full participation -- including Assistive Technology for computer and Internet access, and strategies to include appropriate Assistive Technology within students' IEP's; and access to stories, experiences, and mentoring relationships with scientists with disabilities).
- Share project outcomes with the larger Hawaii community through a creative use of public television -- involving students in video and computer activities to evaluate, document and disseminate project activities.
- Presentation at Pac Rim conference in Honolulu in March 2001.

Staffing

- Dr. Richard Radtke, Hawaii Institute of Geophysics and Planetology, School of Ocean and Earth Science and Technology, University of Hawaii at Manoa will direct and supervise the project.
- Dr. Jim Skouge. Director of the Media, Computing and Assistive Technology Center with the Hawaii University Affiliated Program for Persons with Disabilities will assist with program activities.
- Dr. Albert B. Robillard, Professor of Sociology, University of Hawaii, will lead the evaluation portion of the Ocean of Potentiality Project.
- Shane Gilmore MSc, a certified high school science teacher will assist in development of standards-based science learning activities.

Timeframe

The timeframe for the proposed project is July 1, 2000 – December 31, 2001

Quarter 1	Collaborate with schools to activities to include students with disabilities (September 30, 2000).
Quarter 2	In collaboration schools develop accessible culturally sensitive science curricula * (December 30, 2000).
Quarter 3	Initiate and maintain ongoing networking and informational supports to schools through Internet communications, mini activities, and formal and informal presentations (March 30, 2000).
Quarter 4	Prepare reports to share with state and public officials and present project design and outcomes at local and national conferences. All publications will be available in electronic format (June 30, 2000).

* Curriculum development has been delayed to the summer of 2001 when a science curriculum specialist is then available to the project.

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Phase II
Study Proposal Brief #15
(MS#030-H01)

University of Hawai`i at Manoa Center on Disability Studies
National Center for the Study of Postsecondary Educational Supports
A Rehabilitation Research & Training Center
Joie Acosta

DO-IT Program, University of Washington: Collaborative Site
Sheryl Burgstahler

Transition from Two-Year to Four-Year Postsecondary Institutions for Students with Disabilities

Statement of the Problem

Students with disabilities in two-year colleges face challenges as they transition to four-year schools. Some are similar to those faced by their non-disabled peers, however some challenges are related to their disabilities. For example, some lack skills in self-advocacy and some have difficulty adjusting to the differences in disabled student services between the two types of schools. To improve the postsecondary outcomes and ultimately, career outcomes for students with disabilities, two-year and four-year schools should take actions to make their campus services more supportive of this important transition between their schools.

Most postsecondary students with disabilities register with and receive the majority of their support from their campus disabled student services offices. These offices are charged with assuring that reasonable accommodations for access to classes and to campus services are provided. Some provide academic advising, tutoring, career planning, and college transfer services as well. As they plan their service offerings, it would be helpful for disabled students services staff to have more complete information to increase their understanding of students concerns and institutional roles in education. A qualitative and quantitative research understanding will help to identify the most important concerns and challenges for transfer students with disabilities, as well as the ways in which two-year and four-year schools can work separately and together to ensure success in postsecondary education.

Research Questions

1. What are students most concerned about when they are transferring from a two-year to a four-year postsecondary pro-gram?

2. How can two-year and four-year institutions help students with disabilities successfully transfer to four-year schools?

Methods

The proposed study will incorporate quantitative and qualitative methods. The quantitative methods will be utilized to assess student concerns. The qualitative methods will include focused discussions among faculty and staff from postsecondary institutions to deliberate methods for more successful student transfer.

Student Concerns

To quantitatively assess student concerns approximately one hundred twenty disabled students from twenty colleges in Washington State will be surveyed to assess the most important aspects of concern when transferring from a two-year to a four-year school. Student participants will be asked to indicate on a Likert scale from 1 (not important) to 5 (very important) the importance of specific transfer related issues. They will also be given a chance to respond to the question in an open-ended format after filling out the survey. The participants will be located through project staff, by phone contact with disabled student services coordinators on college campuses throughout Washington State. The groups will meet for one to two hours in an informal, drop-in format to fill out surveys.

Institutional Action/Activities for Successful Student Transfer

To qualitatively assess what two-year and four-year schools should do to aid students with disabilities in transferring to a four-year school, a survey will be sent out to approximately 2400 postsecondary institutions. A mailing list will be established through the use of the Higher Education Publications (HEP) database. Surveys ask in an open-ended question for characteristics of a program that successfully helps students with disabilities to transfer from two-year to four-year schools. The surveys will be mailed to postsecondary schools with enrollments of 1,000 or more, and envelopes will be addressed to "Disabled Student Services".

To further assess what two-year and four-year schools should do to aid students with disabilities in transferring to a four-year school, approximately twenty faculty and staff from seven postsecondary institutions in Washington State will participate in focused discussions. These discussions will supplement the ideas submitted by survey respondents and provide suggestions for interventions in a mutually stimulating environment. Faculty and staff from both two-year

and four-year schools will be included. Participants will be invited based on their diverse geographic locations across the state, diverse institutional characteristics, and variety in specific professional positions. A director of disabled student services will be conducting the focused discussions.

Products and Impact

The project will result in at least the following products:

- Published article(s) targeted at disabled student services officers at postsecondary institutions of higher education, postsecondary administrators, and/or postsecondary student services personnel.
- Research brief(s).
- At least one conference presentation
- Research summary publication and project videotape distributed to AHEAD and elsewhere.
- At least one grant proposal for future work in this area.

Completion of this research project will increase the understanding of the concerns of students with disabilities as they transition from two-year to four-year postsecondary institutions and identify promising practices for helping to ease their transition. It will also lead to improved practices at postsecondary institutions and ultimately result in more successful academic and career outcomes for people with disabilities.

Timeline/Benchmarks

October 1, 2000	• Summary publication created and distributed at AHEAD 2000; SB and colleague presented preliminary results at AHEAD conference • Draft provided to NCSPCS working on completing research review, presenting data, and developing draft of research brief
November 1, 2000	• Draft article for DSQ due to RRTC
January 1, 2001	• RRTC research brief completed • Follow-up research study proposed for funding by FIPSE
April 1, 2000	• Summary results distributed at PacRim • Conference proposal(s)submitted.
October 1, 2001	• Results disseminated at AHEAD and other conferences

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Phase II
Study Proposal Brief #16
(MS#057-H01)

University of Hawai`i at Manoa Center on Disability Studies
National Center for the Study of Postsecondary Educational Supports
A Rehabilitation Research & Training Center
Joie Acosta & Robert Gregory

Employers and People with Disabilities: Allies, Not Barriers

Statement of the Problem

Descriptions of work behavior from the past were based on roles, tasks, and activities of people without disabilities. These descriptors have been presented in standardized reference works, such as the Dictionary of Occupational Titles, and are defined the structure and content of occupations (United States Department of Labor, 1991). People with disabilities may or may not accomplish or perform work in similar ways to those descriptions, and this study may be able to shed some light on divergences.

Specifically, persons with disabilities are more likely to have the characteristics that reduce labor force participation (Yelin, 1996). Individuals with disabilities entering the work force are less likely to be employed in executive/professional, technical/sales, and administrative occupations. Disabled populations are more likely to receive employment opportunities as craft workers, operatives, transportation workers, and laborers (Yelin & Trupin, 1999). Less than one half of one percent of employed persons with disabilities are pharmacists, lawyers, judges, physicians, dentists, health workers, firefighters, or fire prevention workers (Stoddard, Jans, Ripple, & Kraus, 1998). The assumption that people with disabilities are unemployable creates difficulties in finding employment, while discrimination against people with disabilities at work, and the need for special accommodations offer unique challenges for the employee with disabilities at work (National Center for the Study of Postsecondary Educational Supports, 2000). This study is designed to examine how young people with disabilities acquire jobs, how level of support effects employee performance level, and how employers operate in hiring and maintaining people with disabilities.

"What is work? No definition is satisfactory because work relates to all human activities, and one would have to exhaust all such activities to exhaust the

provinces of work. Modern terminology uses the word occupation to identify work activities. It is a functional term describing what people do to 'earn a living,' emphasizing that it is work which sustains life (Applebaum, 1992, p. 36)." Work has progressed through history with changing responsibilities. Employees with disabilities seem to be caught in the secondary phase of work which is characterized by industrial period, while people without disabilities have progressed to the tertiary phase of postindustrial, computer-based careers (Applebaum, 1992).

In order to successfully guide people with disabilities into a productive and successful career path, postsecondary support services need to be in place to encourage career exploration and adaptation. For example, identifying successful role models, encouraging students to volunteer, arranging for internships or "shadowing experiences, encouraging students to work during the summer, and conducting student tours of industry and business can promote students interest in their occupational future and give them the confidence they need to enter the work force (Maddy-Berstein, 1997). Although Individuals with Disabilities and Education Act (IDEA) promotes academic and career development and school-to-work transition for secondary youth, it is important to recognize the differences between a job and a career.

A bachelor's degree is a prerequisite to many career opportunities. Yet, students with disabilities are often unsuccessful in postsecondary education. Employment rates for people with disabilities are closely linked to their level of education (Stodden & Dowrick, 2000), but they have a lower rate of postsecondary enrollment relative to the general population (Office of Special Education Programs, 1992). The differences between the populations with and without disabilities persist into the employment arena (Benz, Doren, & Yovanoff, 1998; National Center on Secondary Education and Transition for Youth with Disabilities, 2000). Therefore, students with disabilities at a college level planning to pursue a career are a minority population that is often overlooked. This study is going to explore the transition of supports from postsecondary education not only to the work place, but also to a career.

Furthermore, the meaning people attribute to their work is to be sought. Applebaum (1992) compares work to "the spine which structures the way people live, how they make contact with material and social reality, and how they achieve status and self-esteem" (p. 5). These complex relationships have been skillfully and artistically captured by writers, such as Studs Terkel (1974) in his classic book, "Working". Ethnography too has often captured the lives of people in a community in such ways that a great deal of light is shed on work

and attitudes towards work (Lareau and Shultz, 1996). Some ethnographic accounts specifically focused on workplace settings giving detailed accounts of the micro system setting of work (Baba, 1991; Darrah, 1996). There have been many rich program descriptions dealing with efforts to enable people to get work and meaningful jobs (Bernick, 1987; Bullock, 1985). It is the goal of this study to explore "work" in a holistic manner, looking at the importance of support transition from postsecondary education to the workplace, life in the work place for employees with disabilities, and the role of employers in this process.

Research Questions

1. What supports are offered to students with disabilities to assist them with the transition from postsecondary education to the workplace?
2. What have been the experiences of young people with disabilities who have obtained and participated in planned, competitive jobs in their career field of preparation?
3. How does participation in a career impact an individual's overall quality of life?

Study Method

The proposed study will be conducted in three phases. Phase I will incorporate a survey of individuals with disabilities that have obtained work in the respective careers to assess the presence and quality of supports. Phase two will consist of a long-term ethnographic study of several career environments where individuals with disabilities are working. The third phase of the study will build upon the information already gathered to design a survey. The survey will assess the quality of employment situations, and the quality of life outside of work for people with disabilities. Young people with disabilities will combine information gathered from these three phases to present a complete picture of working behavior.

Phase I

To quantitatively assess the presence and effectiveness of transfer supports from postsecondary education to work, approximately fifty people with disabilities who successfully obtained employment in their career of choice will be surveyed. Twenty-five disabled individuals from the DO-IT Program in Washington State, twenty-five students recruited by a DVR in the Midwest, and twenty-five students who have graduated from postsecondary institutions in Hawaii will comprise the pool of participants. The participants will be surveyed to assess the presence and effectiveness of transfer supports from postsecondary education to the workplace. Project staff through phone contact will locate the participants with disabled student services coordinators

on college campuses throughout Hawaii and through contact with DO-IT staff members. The surveys will be conducted in an on-line format, via the Internet.

Phase II

To qualitatively assess the experience of an individual with disabilities in the workplace, an ethnographic study of several work sites will be conducted. The work sites will be located in Hawaii and chosen based on availability and cooperation of both the employee and employer. The ethnographic method has been well described and offers an important point of view essential to understanding a setting and the activities of people in that setting. Maanen (1988) for example, wrote, "Impressionist tales, with their silent disavowal of grand theorizing, their radical grasping for the particular, eventful, contextual, and the unusual, contain an important message. They protest the ultimate superficiality of much of the published research in social science – ethnographic or otherwise" (pg. 199). Getting beyond the superficial for people with disability in a work setting is basic to design and development of programs of support.

Phase III

The vehicles for measurement in Phase III will be a survey based upon findings from the previous phases. The goal for Phase III will be to assess the quality of the employment situation and the quality of life outside of work.

Timeline/Benchmarks

March 15, 2001	• RRTC research brief completed • Draft of literature review
April 15, 2001	• Final draft of Phase I survey • Recruitment of participants for Phase I survey
August, 2001	• Final draft of survey posted on Internet • Data collected and analyses began • Begin recruitment of participants for Phase II
September 30, 2001	• Draft of Phase I results • Final draft of Phase I results
October, 2001	• Begin Phase II • Draft of literature review for Phase II • Submit Phase I to a journal
March, 2002	• Presentation at Pac Rim • Complete collection of Phase II • Present preliminary results
June, 2002	• Begin Phase III • Draft of literature review for Phase III • Final draft of Phase II results
September, 2002	• Final draft of Phase III survey • Recruitment of participants for Phase III
December, 2002	• Data collected and analyses began • Draft of Phase III results

Products and Impact

The project will result in at least the following products:

- Published article(s) targeted at student services officers for students with disabilities at postsecondary institutions of higher education, postsecondary administrators, postsecondary student services personnel, rehabilitation professionals, and/or employers.
- Research brief(s).
- Finding brief(s)

- At least one conference presentation

Completion of this research project will increase the understanding of the career path of individuals with disabilities. Specifically, three areas will be targeted: (1) the transition from postsecondary institutions to the workplace, (2) the employment context, and (3) the impact on quality of life outside of work. This study will present a holistic and complete view of career mobilization for individuals with disabilities utilizing several different measurement techniques. This information is vital in identifying promising practices for helping to ease the transition from postsecondary institutions to the workplace, lead to improved practices at postsecondary institutions and arenas of employment, and ultimately lead to more career outcomes and more fulfilling lives for people with disabilities.

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Phase II
Study Proposal Brief #17
(MS#058-H01)

University of Hawai`i at Manoa Center on Disability Studies
National Center for the Study of Postsecondary Educational Supports
A Rehabilitation Research & Training Center
Jennifer Graf

Quality of Life after Postsecondary Education for People with Disabilities

Statement of the Problem

Interest in quality of life studies began in 1960s when sociologists took an interest in investigating life satisfaction in the United States. The most holistic definition is that of Hornquist-defines quality of life as the degree of need satisfaction within the physical, psychological, social, activity, material and structural areas.

Quality of life issues for people with disabilities are part of a bigger picture, self-competence and self-determination. Self-competence is complex, multidimensional and has been associated with a range of constructs: locus of control, self-efficacy, self-regulation, autonomy, learned helplessness, mastery motivation, empowerment and quality of life (Powers, Singer and Sowers, 1996, p. 10). Self-determination is defined as "acting as the primary causal agent in one's life and making choices and decisions regarding one's quality of life free from undue external influence or interference" (Wehmeyer, 1996, p. 24) Practitioners believe a student's ability to control his/her environment is empowering and can improve the quality of life (Abery, Bruininks, and Eggebeen, n.d.; Field and Hoffman, 1992; Halpern, 1996; Van Reusen, Deschler and Schumaker, 1989; Wehmeyer, 1994; Wehmeyer and Kelchner, (n.d.). Education is thought to be one such way to empowerment and a higher quality of life. The importance of postsecondary education has increased dramatically because of changes in the nation's labor market. For people with disabilities, overcoming the obstacles of post-secondary education and graduating from college can be a major accomplishment and step towards controlling his/her environment. Does a professional life obtained through postsecondary

education give people with disabilities access to a better quality of life?

There has been little research in this area relevant to professional lives of people with disabilities. Domains for objective components for assessment include: life satisfaction, employment-economic integration, employment stability, life satisfaction, employment-economic integration, employment stability, personal choice/control, residential integration, social networks, community assimilation and acceptance, social/recreational-leisure integration, family integration, formal support services, citizenship/contribution, and educational involvement (Lin, 1996). Domains for subjective components will vary from person to person and may look very different for a person with a disability (Tam, 1998).

It's conceivable that some variables that may effect quality of life are: locus of control, communication skills (accommodated and not accommodated), socioeconomic, type of disability and when disability occurred (birth or during life), social supports, community involvement, history of employment and range of settings/ responsibilities. Those with a higher quality of life should have substantial freedom and dignity, and be actualizing his/her potential to achieve maximum independence, self-acceptance, and social acceptance. This should be even truer for people with disabilities, who continually encounter forms of discrimination in many facets of life such as postsecondary education and employment.

Research Questions

1. Does a professional life obtained through postsecondary education give people with disabilities access to a better quality of life?
2. What does it mean/what does it look like for a person with a disability to have a quality of life experience?
3. Is this the same meaning/picture as a person without a disability?
4. Are people with disabilities acting what they value or do they inhabit worlds of other people's construction?

Study Method

Little research has been done to find the outcomes of postsecondary education for people with disabilities. For this reason, it is important to use the in depth approach given by a qualitative methods. Qualitative methods offer significant advantages to the understanding of such poly-dimensional human experience as the one

being studied. Case studies will be used to describe both people with disabilities and those without, on their respective thoughts on the quality of life.

First, permission for research on human subjects will be obtained from The Human Subject Research Committee at the University of Hawaii at Manoa. The interview will take place in a comfortable room. An experienced interviewer will be chosen. The reliability of the study will be by using the same list of objective quality of life indicators and subjective probe questions.

Then informants will be identified. They will be people with disabilities and similarly employed people without disabilities who have successfully negotiated post secondary education and are employed. A professional society willing to nominate members interested participating in the study will be identified and approached. Five people with disabilities will be matched to a similarly employed five. Selected informants will reveal and describe both their objective quality of life indicators and subjective quality of life indicators. A person with disabilities working in a certain field will be compared to a person of the same profession and their quality of lives will be compared.

All interviews will be tape recorded (with the permission of the interviewee), transcribed and note taken on relevant information (verbal and non-verbal). The researcher will then study the transcripts and notes carefully, finding themes using the constant comparative method (Glaser, Strauss; 1967, Taylor and Bogdan, 1984). Computer software for qualitative data analysis will be used to enhance the reliability of the analysis process. (Fielding & Lee, 1998; Richards & Richards, 1994). Results will be offered to the informants for feed back (testimonial validity) so that the participants will be able to validate or refute the accuracy of the researcher's interpretations and conclusions (Kotre, 1984; Stiles, 1993; Lincoln & Guba; 1985.)

The data from the case studies will be brought to the University of Hawaii at Manoa and entered into a qualitative analysis computer program, Ethnograph. A content analysis of the data will be completed using a constant comparative method yielding themes (Glaser & Strauss, 1967). A second researcher will again analyze the data and comparisons of findings will be generated; this will increase trustworthiness or validity of the findings. The computer program, enhancing replicability, will record an audit trail of the findings,

themes in this analysis. A report of the findings will be generated.

Products

It is anticipated that several products will result. A presentation at a national conference will distribute the findings to a select audience. A research brief and journal article will further the distribution. The findings will hopefully give an idea of where to begin in helping to bridge the transition from postsecondary education to employment.

Work Plan

April 1, 2001	Research Brief Submitted
June 1, 2001	Obtain Human Subject Research Approval
	Identify Informants Schedule Interviews
September 15, 2001	Interviewing Completed
October 31, 2001	Content Analysis completed on case studies
November 15, 2001	Findings validated by informants
January 15, 2002	Findings brief
March 15, 2002	Journal Article or web posting
March 2002	National Presentation-PACRIM

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Phase II
Study Proposal Brief #18
(MS#061-H01)

University of Hawai`i at Manoa Center on Disability Studies
National Center for the Study of Postsecondary Educational Supports
A Rehabilitation Research & Training Center
Anona Napoleon

A Success Story: The Participant's Experiences and Perceptions, as Well as Supporting Parents and Teacher in Post-Secondary Education to Employment

Statement of the Problem

Secondary students with disabilities (SWD) continue to lag behind their non-disabled counterparts in education and employment. Youth with disabilities have been educated in increasingly inclusive settings for the past 25 years. During the past 15 years, there has been an array of many school-to-work programs funded by the federal government (RRTC, 2000). Concurrently, transition to work is a priority of Rehabilitative Services, as stated in the 1992 Rehabilitative Amendment (PL102-569), yet youth with disabilities complete public education and enter uncertain futures. A survey commissioned by the National Organization on Disability (1998) concludes that only 29% of persons with disabilities of working age are employed full or part-time, as compared with 79% of those who don't have disabilities. Of people with disabilities who are not working, 72% report that they would prefer to have a job. One avenue to secure better skills and higher wages is through higher education, and the enrollment rates for students with disabilities are increasing at the post-secondary level (Stodden, 1998).

Percentages of Employment and High School Graduation of Disabled and Non-Disabled Students

	With a Disability	Without a Disability
Full and Part-time Employment	29%	79%
High School Completion	80%	90%
Attend Postsecondary Institution		
1-2 years after high school	19%	56%
3-5 years after high school	27%	68%

(Stodden and Dowrick, 1999: Blackorby and Wagner, 1996)

SWDs are often not prepared to enter college. Many SWDs have not had the opportunity to learn the skills to advocate for themselves in secondary school. Legally, parents have mandates under IDEA to direct curriculum, placement and supports until SWDs are 18 years old or exit public school. Students are confronted with many different expectations as they enter postsecondary educational institutions when they find themselves on their own. They are expected to make choices between colleges, and courses, and need to negotiate their own supports. Their experience during the transition year from high school to college does not give them the abilities to direct their education. Then, during the fall of that same year, SWDs have the full right and responsibility to identify and negotiate all of their accommodations. Antidotal evidence suggests that students perform better when parents advocate for them during secondary school (S. Burgstahler, personal communication, September 21, 2000), but this does not necessarily prepare the students for the tasks that follow.

Research Questions

1. What have been the experiences and perceptions of this one person "M", with a learning disability, her family members, and her postsecondary educator (who was pivotal in her success), in providing supports for her completion of postsecondary education, and her employment as a teacher?
2. What are the unique experiences and perceptions of each of the individuals involved?
3. How important a role did family play?
4. How important a role did "M's" postsecondary support educator/coordinator play?
5. What or who was "M's" empowering force?

In secondary education students are surrounded by a variety of supports but their learning opportunities continue to "lack the variety, frequency and latitude of learning opportunities that would allow them to experiment with behavioral options" (Ward, Kohler, 1996, p.288). In postsecondary education the opposite is true, students are surrounded by less supports and have more learning opportunities available to them (Rumrill, 2001). The goal is to create balance between opportunities and supports.

Sample

The participants are three; "M", a person with a learning disability (her success story) a family member who supported her, and a postsecondary educator, who "M" believes was pivotal to her success.

Study Method

The method used will be qualitative, in case study report form, using interview results. Specific formats to be

used for examination of the interviews are described by Guba and Lincoln (1985), as "a slice of life" and "depth examination of an instance". To understand what has happened with the participant and her supports throughout the course of her postsecondary studies, "a slice of life" format will be used (Guba & Lincoln, 1985). Another method to be used will be the "talk-story" format, which is specifically to talk to the focal person by starting with "tell me something about yourself" (Paulo, et al, 1999). Then, the focal person is asked for other informants that have helped them toward success, and then interviews are conducted with these individuals.

The Case-Study Method will be used because our research questions are more explanatory in nature and are conceptualized as "how" and "why" questions (Yin, 1994, p. 6). A case study also can illustrate certain topics within an evaluation in a descriptive mode.

Data Collection

The case study will examine the experiences and perceptions of "M", a person with a learning disability, a family member, and a teacher who supported her completion in postsecondary education and continues to support her employment as a teacher. Permission for this research will be obtained from the University of Hawaii's Internal Board of Review. Consent for the study has been obtained in written form from the subjects. The interviews, in "talk-story" format will be audio taped, transcribed, and shown to all persons interviewed to add to or delete as they wish, in order to clarify their meaning.

The goal is to find grounded theory of successes (the how and what decisions) made by the participants.

Graduate Assistants versed in data analysis will help in analysis of the findings, and will use qualitative software that is compatible with this format. They will search for salient themes using analytical inductions and the constant comparative method. This will produce validity and enhance dependability of the findings.

Products

A research brief or journal article is anticipated.
A presentation by the participant at a National conference is also anticipated.

WORK PLAN

April 2001	Research Brief submitted IRB approval Interviews begin
May 2001	Content analysis completed Findings validated
June 2001	Brief/Journal article Presentation at Pac Rim Conference 2002

Phase II
Study Proposal Brief #19
(MS#056-H01)

University of Hawai`i at Manoa Center on Disability Studies
National Center for the Study of Postsecondary Educational Supports
A Rehabilitation Research & Training Center
Lynn Nakahara

Resource Mapping Matrix Proposal

Statement of the Problem

Ensuring equal access to an education for students with disabilities (SWDs) in postsecondary institutions has been aided with legislature such as the Americans with Disabilities Act (ADA) in 1990 (PL 101-336) and the Individuals with Disabilities Education Act (IDEA) Amendments of 1997 (PL 105-17). There are now laws mandating that postsecondary institutions provide reasonable accommodations and educational supports to SWDs. Although the number of SWDs who enroll in postsecondary institutions is still 50% lower than that of the general population, enrollment is on the rise (Johnson, 2001; OSEP, 1996; Stodden & Dowrick, 2000). Legislation is helping to close the gap between SWDs and students without disabilities.

Research from *Focus Group Discussions on Supports and Barriers in Lifelong Learning* has shown that a successful postsecondary education for SWDs leads to a more productive and fulfilling life (National Center for the Study of Postsecondary Educational Supports (NCSPES), 2000a). Postsecondary education is highly correlated with improved vocational options and financial success for persons with disabilities (NCSPES, 2000e; Presidential Task Force on Employment of Adults with Disabilities, 1999). Therefore, it should go without saying that supports for SWDs warrant adequate funding from federal and state agencies. However, funding is cited as the main concern of disability support coordinators in the *National Survey of Educational Support Provision to Students with Disabilities in Postsecondary Education Settings* (NCSPES, 2000c).

With as many as 17% of all students in higher education programs in the United States identified as having a disability, supports for these students is an issue that needs to be addressed (National Council on Disability, 2000). As shown in the 2001 NEA Higher Education Almanac, from 1992 through 1997 students and parents have had the

highest percentage (48%) of total expenditures of funding sources for all of postsecondary education, with state and local governments trailing behind them, and the federal government in a dismal third place with around 10% (National Education Association, 2001).

There is a great deal of variability in supports being funded in postsecondary institutions from state to state and even school to school (National Center for Education Statistics (NCES), 1999b; NCSPES, 2000b, NCSPES 2000d). Part of this may be due to lack of knowledge about what funds are available and another part may be lack of coordination between supports and funding streams (NCSPES, 2000a). The Department of Human Services, Vocational Rehabilitation and Services for the Blind Division, **IS THIS HAWAII** identified principle supports for consumers which include: personal attendant services, reader services, interpreter services, diagnosis and treatment of impairments, vocational and other training, transportation, and maintenance. These categories were broken down even further into about 30 key elements, as stated in the *National Survey* (NCSPES, 2000c). For students in postsecondary institutions, these supports are fundamental in ensuring an optimal education (NCES, 1999a; NCSPES, 2000c; Stodden, Jessen, & Lolotai, 1999; Stodden, Whelley, Harding, & Chang, 2001).

Knowledge of barriers and issues relating to legislation, policy, and funding requirements for SWDs with regard to access, retention, and graduation in postsecondary institutions is crucial (NCSPES, 2000e). Social Security and Supplemental Security Income disability programs, Vocational Rehabilitation programs, the Rehabilitation Act, and Ticket-To-Work are just a few of the funding streams. However, some SWDs can be supported using money from other areas, such as the Department of Juvenile Justice and School-to-Work programs. It is up to SWDs, parents, Disabled Student Services personnel, and advocates to be informed of supports needed and funding sources available in order to maximize benefits. With increased awareness of all the relevant resources available, they will be able to use these funds efficiently.

Research Questions

1. Given current regulations, funding streams, legislation, and policy, what are allowable **EDUCATIONAL** supports for SWDs in postsecondary institutions?
2. What is the comparison of Federal legislation and funding stream **REQUIREMENTES** vs. allowable **EDUCATIONAL** supports **AS PROVIDED** for SWDs in postsecondary institutions at the national level?
3. What are some examples of programs that are effectively utilizing all available funding

OPTIONS to provide optimal supports for SWDs in postsecondary institutions and what are the criteria for why these programs are **EFFECTIVE** (i.e. funding, leadership, collaboration)?

4. What are some missed opportunities of postsecondary institutions in regards to accessing funds from other (general population) programs in order to better serve SWDs (i.e. Department of Transportation, Vocational Rehabilitation, Department of Labor, W.I.A., Ticket-To-Work)?

Method

The first **PHASE** will be a descriptive study that will entail researching the literature, government documents, GAO, and Educational Statistics. The second part will be a matrix analysis that will consist of organizing all the supports vs. funding information into a resource-mapping matrix, which will enable someone to determine funding streams for the supports in which they are interested. The third part will be to identify effective models of disability support programs across the nation. Three case studies will be done which will serve as examples of ideal programs that utilize funds efficiently at the postsecondary level.

Part 1: Descriptive Study

The first step is to collect information on federal legislation, state legislation, and funding streams for postsecondary institutions with regard to supports for SWDs. The protocol used to collect data will be an information sheet, which highlights supports that each of the resources provides funding for. This list of criteria will be used to categorize the funding streams in a matrix format. The sample to be used will be all identifiable resources and the main allowable services necessary to ensure an excellent education for SWDs in postsecondary institutions. The method of analysis will be based on the qualitative and quantitative data previously collected (past studies) on necessary services for SWDs.

Part 2: Resource Mapping Matrix

The next step is to create a resource mapping matrix which clearly illustrates where the funding originates from and what supports they will foster. The goal will be to create a tool that the targeted audiences could use to determine funding for necessary supports for SWDs in postsecondary institutions. The matrix will look something like this (with about 30+ allowable support variables in the vertical column and 10+ funding stream variables in the horizontal column):

	Social Security	ADA	Dept. of Education
Interpreter Services			
Vocational Training			
Transportation			

Part 3: Case Studies

The final step is to look at sites (nationally) that provide optimal supports for their SWDs and look at their uses of funding streams. Possible sites include University of Hawai`i, University of Minnesota, University of Virginia, Fitchburg State (Massachusetts), University of Ohio, and University of Washington. Three sites will be chosen based upon recommendations from leaders within the field as well as an on-line literature review of current research on the effectiveness of these programs. Case studies will be done on these 3 sites in order to outline the efficient use of funding streams to provide supports for SWDs in postsecondary institutions. The case studies will also offer examples to other institutions of how to adapt funding streams to one's own program.

Products and Impact

The goal will be to create a tool that the targeted audiences could use to look at providing all supports necessary for SWDs to receive a good education in postsecondary institutions. The Resource Mapping Matrix will be a basis for determining various funding sources for supports needed.

The targeted audiences will be disabled students, Disabled Student Services personnel, Special Education personnel, parents of students with disabilities, Vocational Rehabilitation counselors, and Federal and State policy makers and legislators.

- Reports posted on the NCSPES web page
- Policy briefs and papers
- Conference presentations

Implications for Training & Technical Assistance

This is expected to yield important information for administrators of postsecondary education and policy makers. Submissions to professional publications and presentation at a policy summit will be appropriate.

Timeline

Task	Finish Date	Product / Outcome
Collect information & design matrix	June 30, 2001	Matrix Tool
Complete descriptive study	October 1, 2001	Findings Brief
Matrix analysis	December 31, 2001	Resource Mapping Matrix
Complete 1st case study	March 1, 2002	Presentation at Pac Rim 2002
Complete 2nd case study	June 30, 2002	Implications Brief & Presentation at Summit
Complete 3rd case study	September 30, 2002	Findings Summary & Paper

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Phase II
Study Proposal Brief #20
(MS#063-H01)

University of Hawai`i at Manoa Center on Disability Studies
National Center for the Study of Postsecondary Educational Supports
A Rehabilitation Research & Training Center
JoAnn Yuen

The Initiating Function of Institutions: Engaging Postsecondary Students with Disabilities in a way that Honors the Disability Culture and is Student-centered

Statement of the Problem

The word "initiative" appears in many studies on self-determination and it is used to describe a desired ability for individuals with disabilities. According to Field and Hoffman (1992) being an active player in ones life is assumed to mean taking responsibility for initiating action in order to achieve what is desired and respond to events in a manner that is consistent with [personal] goals. The importance of initiating action is confirmed by its appearance in self-determination curricula and in discussions about self-determination (Field and Hoffman, 1992; Ward and Kohler, 1996). A stated goal for self-determination efforts developed for secondary education is to prepare students with disabilities to take "responsibility for initiating, designing and ensuring their own education accommodations" (Stodden and Dowrick, 1999, p. 21).

Time and money goes into establishing services and supports on campus and an assumption held by policy makers and practitioners appears to be students with disabilities are on campus, "build it [services] and they [students with disabilities] will come." The truth is student demographics do not capture the number of students with disabilities on campus. These students are not identified by the system or through an education plan. In a system characterized by increased opportunities and less supports, students are expected to take the initiative in identifying and securing what they need to graduate. Students with disabilities have been surrounded by a variety of services and supports for most of their lives

and may still expect institutions to take the initiative in assisting them (Rendon, 1994). Ironically, research suggests simply having supports available to students may not be enough. Some students "long for a partnership" between disability services on campus, university administration, and the students themselves" (National Center for the Study of Postsecondary Educational Supports, 2000, p. 3). What shape does initiation take in order to be effective in engaging students? Postsecondary students who have supporters—not only supports—appear to value the people who support them and believe "disability support providers often give students a human connection to the services offered by the school" (National Center for the Study of Postsecondary Educational Supports, 2000, p. 10). Perhaps the value of support to students with disabilities measured in terms of human interaction more than service interaction. We know in postsecondary education human resources allocated to supporting students with disabilities are limited; those in the field are overwhelmed by caseloads and only able to tend to emergencies, and high-end needs.

It is unclear how much institution "initiative" is perceived by students to be enough and we are beginning to understand what students consider to be too much. In their enthusiasm to support students, programs may inadvertently begin to take control out of the hands of their students. Students express feeling that they are being "micromanaged" by support service providers and the student/provider partnership appears to be moving away from a shared and balanced relationship. Students express that they must be able to determine their own needs, and they want to be treated as individuals, not disabilities (National Center for the Study of Postsecondary Educational Supports, 2000, p. 11).

As we teach students and advocate for them to take more control in their lives, the issue of control and equity will remain a central issue to the initiation function. According to Cummings (1993) the self-determination movement may be more about control—the amount of control a person experiences across various domains and how this perceived variable flows between students with disabilities and disability support providers. When does the initiating function become perceived as controlling and out of balance in favor of either partner? Managing and enhancing the initiating function is a product understanding the variable flows of control across domains and more importantly how to adjust oneself to changes in relationships and ultimately, achieve desired outcomes.

Questions to be Addressed:

1. What is the literature on the "initiating function" of postsecondary program models and how to engage students first and their disability second?

2. What does it mean for postsecondary students with disabilities to feel in control within a domain?

3. What does it mean for postsecondary students with disabilities to feel out of control within a domain?

4. How do postsecondary disability support services adequately initiate support while enabling the student to feel in control of their goals and outcomes?

5. How does the change in level of control between an organization and students with disabilities impact the "initiating function"?

6. Why do some students feel "micro-managed" while other students feel human connections exist?

7. How does an institution create a positive first impression on students? When and where does this impression begin to develop?

8. What are the requirements to establish a model program to provide an effective initiation function for students with disabilities?

Method—A Case for Case Study

A case study will be used to document the point of first contact between three students with disabilities and support services provided by the University of Hawaii. The study will document key participants in the process, developing roles and relationships, desired roles and relationships, and student outcomes as a result of support. Students will represent three different points in a college student's career: a first semester freshman, a second semester sophomore, and a second semester senior. Participants will be:

- A freshman attending the self-determination course scheduled for Fall 2001
- The RRTC scholar
- Identified by disability support services as a potential mentor for students participating in the self-determination course scheduled for Fall 2001

Our research questions are best addressed by a qualitative, case study approach because case studies appear more explanatory in nature and are conceptualized to respond to "how" and "why" questions (Yin, 1994, p. 6). Case study inquiry manages environments where there will be many more variables of interest than data points, and is effective in explaining causal links in "real-life interventions" (such as disability support services) that may be too complex to be measured by survey or experiment.

Research questions asked address a contemporary set of events—the role of a university in initiating disability support services for students with disabilities— which reflects a process over which the [researcher] has little or no control (Yin, 1994, p. 9). The case study is relevant in this setting because it provides "empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident" (Yin, 1994, p. 13). A case study will also be used to illustrate certain topics within an evaluation in a descriptive mode and link program implementation with program effects.

The choice of a case study does have drawbacks. There may be a perceived lack of rigor because the researcher, who is also the instrument of research, and may allow "equivocal evidence or biased views to influence the direction of findings and conclusions" (Yin, 1994, p. 9). There are possible threats to validity and reliability in any type of study, whether quantitative and qualitative, and knowing this it becomes critical to triangulate findings by presenting several sources of evidence surrounding one case. In this study the use of three different student cases representing three different points in time will also be used to help strengthen the validity and reliability of results.

Phase I Activities (May 1, 2001 – June 30, 2001):

1. Conduct a literature review to better understand how the "initiating function" is conceptualized.

2. Conduct a literature review to determine what it means for disability support services to adequately initiate support, while enabling the student to feel in control of their goals and outcomes.

3. Conduct a literature review to understand the concept of "control" and how this may effect the balance of power between support services and students.

4. Identify current programs and families who have achieved a

successful support from their postsecondary institution.

5. Identify strategies that enable "initiation" and "control" to flow freely between support services and students with disabilities.

Phase II Activities (July 1 - September 31, 2001):

1. Produce a white paper summarizing the current status of research and understanding, policy and practice surrounding the concept of the "initiating function of service supports" and the relationship developed with students.
2. Produce an articles for publication in professional journal.

Phase III (October 1, 2001 - February 29, 2002):

1. Data collection will begin during the month of October and November.
2. Data analysis will be ongoing from October to February.

Phase III (March 1, 2002 - April 30, 2002):

1. Write results, finding and implications of data.
2. Product articles for publications in professional journal.
3. Present findings in conferences.

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Phase II
Study Proposal Brief #21
(MS#062-H01)

Holt High School, Holt, Michigan
Bridges: A Collaborative Transition Model Connecting
a High School and a
Community College
Peg Lamb

The Role of the Rehabilitation Counselor in Transitioning Youth with Disabilities to Postsecondary Education and Employment

Statement of the Problem

Business leaders across the country are clamoring for highly skilled workers in all industries to fill the large voids left by the retirement of the boomer generation and to meet the increased demands of a technological global economy. The U.S. Department of Education in their Strategic Plan of 1998-2000 has reported that postsecondary education is the entryway to professional and technical training and higher wages. Thus, in order for the U.S. to sustain the economy and remain competitive in the world market, it is imperative that young adults pursue some form of education and training beyond high school in order to meet the present workforce demands and to achieve economic independence. This means that postsecondary institutions are faced with the challenge of finding ways to successfully educate all youth including those with special needs.

According to Blackorby and Wagner (1996) youth with disabilities are pursuing postsecondary education in greater numbers climbing form 2.6% in 1978, to 9.4% in 1995, to nearly 19% in 1996. In spite of students with disabilities increased access to higher education they have met with limited success in community college programs, resulting in poor employment outcomes (Stodden, 2000). In an article on postsecondary education and students with disabilities Burgstahler, Crawford, and Acosta (2000) report that only 25% of students with disabilities who have entered community colleges have earned an Associates Degree after five years. In a survey conducted by the National Organization on Disability (1998) only 29% of persons with disabilities, ages 18-64 works full

or part-time. This statistic becomes even more alarming when considered in relation to the estimated size of the U.S. population of persons with disabilities, i.e., 10% of the population or approximately 28 million people (NOD, 1998). Given the present vacancies in the workforce and the projected future needs, it is critical that persons with disabilities enter and be able to succeed in postsecondary education and training in order to access high-skilled jobs and compete in the workforce.

Therefore, there is a compelling need for strong transition programs and practices to address the issues of postsecondary education and services for youth with disabilities. In the 1997 version of IDEA, the definition of "transition services" is very similar to the definition of in the Rehabilitation Act of 1992. According to Kohler (1998) the intent of aligning these two laws was to remove the barriers to school/agency collaboration and facilitate a coordinated transition from school to postschool services and clear the way for the early involvement of Rehabilitation Counselors with high school students with disabilities. The active involvement of Rehabilitation Counselors in transition planning is crucial in assisting students with disabilities in identifying postschool goals and objectives, and the supports necessary to achieve them, and the collaboration and coordination at the interagency systems level is critical (Kohler, 1998). In view of these changes in IDEA promoting the early involvement of Rehabilitation Counselors in providing transition services to high school students with disabilities for postsecondary education and employment, many questions arise regarding their role within both of these educational settings. Additional questions surface regarding the types of services and supports necessary for students with disabilities to experience success in post secondary education and the workplace.

Research Questions

1. What is the nature of the relationship between Rehabilitation Counselors and high school special education teachers/transition specialists in transitioning youth with disabilities into postsecondary education?

2. According to rehabilitation counselors, special education teachers/transition specialists and students with disabilities, what is the role of the rehabilitation counselors in transitioning students to postsecondary settings?

3. What support services do students with disabilities believe are necessary to succeed in postsecondary education?

4. How does a rehabilitation counselor support students with disabilities enrolled in postsecondary education?

5. What is the role of an effective Rehabilitation Counselor in facilitating students with disabilities access to employment after completion of postsecondary education?

Research Methods

The purpose of this qualitative project is to develop a case study of best practices of Rehabilitation Counselors, who have successfully transitioned youth with disabilities through postsecondary education to employment. One way of defining a successful transition from high school to adult life for students with disabilities is the completion of postsecondary education/training and subsequent employment. In the field of rehabilitation the number of clients that become employed determines a counselor's success.

While the legal mandates (IDEA 1997 and ADA 1992) specify that agency counselors are to provide transition services for youth with disabilities in high school through postsecondary education, little is known about the complexity and processes involved in providing these services. There are several human relationships involved in providing these services. This study is interested in the relationships between the rehabilitation counselor and the special education teacher or transition specialist and the relationship between the counselor and the student with the disability. The intent of this project is to examine the experiences of the people involved in successful transitions from high school to postsecondary education and/or training to employment and to provide the professionals and "clients" engaged in this process a case study of the best practices.

The qualitative method is interactive and therefore better able to provide insights into the complexities and processes involved in providing transition services (Marshall and Rossman, 1995). Since the transition planning and the implementation of transition services is process oriented a qualitative approach will enable the researcher to look at the context and the players from a holistic perspective without reducing them to variables and view them and the process as a whole (Taylor and Bogdan, 1984). Further, the qualitative method maybe more effective when used to identify the links and the correlations that exist within and between groups rather than causations (Geertz, 1973).

The case study method is most appropriate for this study because the research questions are more explanatory in nature and the explanations will link the transition services and supports with the effects

of postsecondary/training and employment. These research questions are being asked about a contemporary set of events, i.e., the transition process, and the role of the rehabilitation counselor in supporting this process, over which the researcher has little or no control (Yin, 1994). According to Borg and Gall, (1989) a qualitative inquiry methodology is appropriate when attempting to understand what is happening in a field, in this case the rehabilitation field and transition services. It also provides information about what the happenings (the counselors' interactions and services) mean to the people involved in the process, primarily students with disabilities and special education teachers/transition specialists.

There are three important guidelines for qualitative research that govern the value and usefulness of this type of study: credibility, dependability, and transferability (Guba, 1981). Credibility refers to the congruence between the intended meanings of the participants and those meanings interpreted and represented by the researchers. This study's credibility is increased by having multiple researchers read and analyze the data. Then by having them meet and discuss the data and come to consensus on the interpretations. An additional check on the interpretation of the data is the added step of having the participants included in the initial phases of the analysis. "Crucial to inter reliability is inter-rater or inter-observer reliability--the extent to which the sets of meanings held by multiple observers are sufficiently congruent so that they describe the phenomena in the same way and arrive at the same conclusions about them" (LeCompte and Goetz, p.41).

Dependability involves maintaining stability and consistency while allowing for an emergent study design. This project's dependability is strengthened through the use of multiple researcher verification and by recording and transcribing the interviews. Further, Lincoln and Guba (1985) also recommend triangulation of data as a way to build the credibility and validity of data. Triangulation of data involves collecting multiple sets of data of events to develop accurate representations that can be compared and contrasted for corroboration. Hence, this study will conduct multiple interviews to examine the role of the rehabilitation counselor in providing transition services to youth with disabilities and the nature of the relationships between and among the participants in the process. The key participants in the transition process (rehabilitation counselors, special education teachers/transition specialists, and students with disabilities) will be interviewed separately about their experiences in the transition process. Each participant's recorded experience will be used to corroborate the role of the

Rehabilitation Counselor, the nature of the relationships in the process, and the supports necessary for successful transition of students with disabilities though postsecondary education/training to employment. It is believed that these measures to ensure credibility and dependability diminish the drawbacks often cited about case study methods namely that there is a perceived lack of rigor because the researcher, who is also the instrument of research may allow "equivocal evidence or biased views to influence the direction of findings and conclusions" (Yin, 1994, p.9.)

Transferability refers to the generalizability of the results, whether they will be applicable to another situation. Since all rehabilitation agencies are now required to offer services and supports to youth with disabilities transitioning to postsecondary education and employment, a case study describing the best practices of a rehabilitation counselor will be of interest to all rehabilitation agencies interested in improving the practice of their counselors and the transition services they provide youth with disabilities. In addition, since the tri-county area of the study consists of urban, suburban, and rural school districts, the majority of counselors, special educators, and administrators involved in the transition process in other parts of Michigan and the United States will be able to relate to this case study.

Design of the Study

In order to gain a more holistic understanding of providing transition services to youth with disabilities the perceptions and experiences of the key players in this process and the dynamics of these relationships need to be investigated. This study is designed to take an in depth look at the role of a Rehabilitation Counselor and the nature of these relationships through a careful examination of the counseling practice of 4 Rehabilitation Counselors.

Site Selection: Four Rehabilitation Counselors designated to provide transition services to youth with disabilities in 36 school districts encompassing urban, suburban and rural settings in a tri-county area in Michigan have been identified as subjects for this study. The intent was to identify a site that would be enough of a cross section of school districts in various settings, so that the results of the study would be more readily transferable.

Sampling

Procedures/Recruitment: There are only 4 counselors designated by the tri-county rehabilitation office to provide transition services to youth with disabilities. Thus the sampling size for this study is 100%. All 4 of the counselors have been recruited and have agreed to participate in the study. Each of the 4 Counselors will

identify 3 students with disabilities on their case list that have completed postsecondary education/training and are now employed for a total number of 12 students. Every attempt will be made to identify nearly equal numbers of male and female students with various disabilities (learning and emotional, physical, sensory etc.) schooled in urban, suburban, and rural settings, and as ethnically diverse as possible. Since the goal is to find students who have completed postsecondary education/training and are employed, it should be noted that it might not be possible to have equal representation along each of these dimensions. Additionally, all of the 36 school districts in this tri-county area are at various stages of implementation in providing transition planning and programs, effecting the number and range of the sample. The special education teachers/transition specialists interviewed for the project will be the primary case managers who were responsible for these students' transition planning while in high school. Every effort will be made to select a sample of students and teachers/transition specialists that reflect the range of participants and settings within the tri-county area, so that people outside of the sample will be able to relate to the experiences of those in the study (Patton, 1989).

Data Collection: The data sources for this study will be Rehabilitation Counselors, the special education teachers/transition specialists, and the students with disabilities.

Four Rehabilitation Counselors will be interviewed separately about their role in the transition process and the supports/services they provided in transitioning 3 youth with disabilities on their caseload from high school through postsecondary education/training to employment. This will result in 12 total interviews with the 4 Rehabilitation Counselors. In addition, Counselors will provide information on their interactions with the high school special education teachers/transition specialists responsible for transitioning these 12 students to postsecondary education/training.

The special education teachers or transition specialist, who served as the primary case manager for the 12 students with disabilities identified for this study, will also be interviewed individually about the transition process with these students and the role of the rehabilitation counselor. It is estimated that approximately 6-12 special education teachers/transition specialists will be interviewed, as some may have been the service provider for more than one of the students identified in the study.

The 12 students with disabilities (3 from each counselor) will be interviewed about the role of their Rehabilitation Counselor in

transitioning them through postsecondary education/training to employment and the supports they believe have been necessary for their success.

The research method will be an in-depth interview developed for each of the players in the transition process: rehabilitation counselors, special education teachers/transition specialists and students with disabilities served by these professionals. The interviews will consist of 10-12 questions. Five to 6 of the questions will be common questions asked of all three subjects about the role of the rehabilitation counselor and the nature of their relationships in the transition process. The remaining 5 to 6 questions will be tailored to the individual on specific issues related to their part in the transition process. For example, rehabilitation counselors will be asked about the specific supports and services they provided the 3 individual students with disabilities on their caseload and these students will be asked what supports/services they believed were necessary to succeed in postsecondary education/training?

In-depth interviewing is a method selected for this study as it is one of the best ways to discern peoples' perceptions towards various events in a process, and to compare and contrast their unique interpretations of the roles and relationships of the participants and the effects or outcomes of the process (Patton, 1989).

Data Analysis Procedures: All of the interviews will be audio taped and transcribed. A team of three researchers will analyze the data. For the first level of analysis one researcher on the team will read each of the transcriptions and summarize the content of the interviews. Then, the other two researchers on the team will read the interviews and initial summaries and revise the summaries, if necessary. The research team will meet and work together to develop a final summary. These summaries will be shared with the participants in the study for verification and corroboration of the content of their interviews. Any changes in the content of the summaries will be discussed with the participant and noted.

Since the essential raw data of interviews are quotations and first hand experiences, the second level of analysis will involve examining the content of the interviews to determine what issues or behaviors surface most frequently regarding the role of the rehabilitation counselor for most participants. Quotations and key words will be grouped and catalogued according to the main topics and issues that emerge in this case related to the role of the rehabilitation counselors, the nature of the relationships, and the transition supports and services and other major

topics that are unanticipated (Seidman, 1991, p.12.). The research team will work together to develop common categories from their analyses. These categories will then be analyzed by the researchers to identify patterns and redundancies in the categories related to the role of the rehabilitation counselor, the nature of the relationships, and the necessary supports and services and other unanticipated topics. The researchers will meet to verify and corroborate the analysis of their categories and work together to generate the final results.

The final results from the data will be analyzed and presented as a case study of the best practices of rehabilitation counselors in providing transition services to students with disabilities as they transition from high school to postsecondary education/training to employment. The case study will include descriptions of the nature of the relationships among the players in the transition process, the role of an effective rehabilitation counselor, and the supports and services students with disabilities believe necessary for success in postsecondary education/training and in accessing employment. More than one case study may emerge from this data, such as exemplars of students with disabilities and their experiences in transitioning through postsecondary education to employment.

Reporting the Results

The findings of this study will be reported in the form of case studies of best practices. One case study will be on the Rehabilitation Counselor and their role in providing transition services and the nature of the human relationships in the transition process. Other case studies on the 12 students with disabilities who have successfully transitioned from high school to postsecondary education to employment may be possible to develop. Further, case studies of special education teachers/transitions specialists and the role they play in facilitating the transition planning process in the high school setting may emerge as well.

A series of papers on the supports and services necessary for students with disabilities to succeed in postsecondary education to employment and the nature of the relationships between rehabilitation counselors, special education teachers, transition specialists, and students with disabilities in the transition process will be explored.

The targeted audiences for this research are special education teachers, rehabilitations counselors, postsecondary disabilities counselors, transition specialists, special education directors, rehabilitation agency administrators, policymakers, and parents of youth with disabilities.

Findings will be published in various journals and available on the websites of the National Center for the Study of Postsecondary Educational Supports.

Implications for Training

This study has implications for universities involved in training pre-service special education teachers, transition specialists, special education administrators, and rehabilitation counselors. It has further implications for the continuing professional development of veterans in the fields of special education, rehabilitation, counseling and special education administration. The study may well illuminate areas for change within the service agencies (rehabilitation and mental health) responsible for transitioning people with disabilities into employment.

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WORK PLANNING DOCUMENT FOR PHASE II STUDY PROPOSALS
YEAR 1

	TASK TO BE COMPLETE	PERSON RESPONSIBLE	TIMELINE	PRODUCT/OUTCOME
Development and Approval of Study Brief	Develop study proposal	Lamb	April 1, 2001	Proposal Accepted
Set-up of Study Design & Method	1. Identify participants: Rehabilitation counselors, students, special ed teachers 2. Develop Interviews for Rehab Counselors, Students, Special ed teachers	Lamb/Project Staff	1. June 2001-October 2001 2. June 2001-October 2001	Participants for study identified
Conduct of the Study(describe plan for pilot, implementation, & replication)	Interview Project participants	Lamb/Project Staff	October 2001-April 2002	Interviews conducted/data collection completed.
Analysis of Data or Information	Analyze interview data from project participants and develop preliminary case studies and framework for research papers.	Lamb/Project Staff	May 2002 - October 2002	Data Analysis completed and framework for case studies and outline for research papers completed.
Development of Products & Reports	Develop Case studies and papers on project outcomes	Lamb/Project staff	October 2002 - January 2003	Submit case study and paper/s for publication and dissemination.
Conduct of Training, TA, & Dissemination	Dissemination results through presentation at state and national conferences (Pacific Rim, CEC, DCDT, AHEAD etc.) and written materials.	Lamb/Project staff	January 2003 - Ongoing	Disseminate project outcomes through written case study and research papers through state and national conferences. Share results with state officials at Michigan Rehabilitation Services and determine possibilities for statewide training.
Projected Costs (funded by the RRTC, leveraged from NSF Bridges Project		Lamb/Project Staff	Ongoing - January 2003	Project budget

Phase II
Study Proposal Brief #22
(MS#059-H01)

Ohio State University
Nisonger Center for Disabilities
Margo Izzo

The Effects Of Postsecondary Settings On Employment Outcomes and Transfer of Technological Supports

Statement of the Problem

Research has shown that there is a positive correlation between disability, level of education, and adult employment (Stodden, 2001; Benz et al., 1998; Reis, Neu, & McGuire, 1997; Blackorby & Wagner, 1996; Gilson, 1996). This relationship is supported by findings that indicate that postsecondary education significantly increases the likelihood of people with disabilities to obtain successful employment (Stodden, 2001; Gilson, 1996). A more profound illustration of this point can be found in employment trends. Though people with disabilities are traditionally more unemployed or underemployed relative to their counterparts without disabilities, there is however a greater correlation between education and employment rate for people with disabilities than for the general population at large (Stodden, 1998). In other words, participation in the work force increases with level of education attained and this increase is even more dramatic for individuals with disabilities, as illustrated by the following 1996 U.S. Bureau of Census statistics. For the general population, the labor force participation rates were 75.4% for persons who did not complete high school, 84.6% for those who completed high school, 87.8% for those who acquired some postsecondary education, and 89.7% among those who completed at least four years of a postsecondary program. The respective participation rates for people with disabilities are a lot lower, but the relationship between these percentages and level of education attained is much higher. For example, only 15.6% of persons who did not finish high school were working, but for those who did finish secondary school, 30.2% were labor force participants. This number jumps to 45.1% for those who have acquired some level of postsecondary education and reaches 50.3% for persons with disabilities who have completed at least four years of postsecondary program (Stodden, 2001; Yelin & Katz, 1994a, 1994b; Reskin & Roos, 1990). What is important to note here

is that postsecondary education is strongly associated with material and professional success for persons with disabilities (Stodden, 2001; Gajar, 1998). Therefore, in light of its impact on quality of life especially for people with disabilities, the postsecondary setting becomes an important domain of research inquiry.

Within the transition from postsecondary setting to employment area, there is a profound need to explore technological and educational supports as they affect student performance and to identify obstacles facing students with disabilities as they make transitions across various settings, such as moving from 2-year to 4-year schools or graduating from college and gaining employment (Stodden, 2001; Gajar, 1998). In this vein, it becomes necessary to explore differences across postsecondary institutions as to what supports are offered for students with disabilities and how useful and transferable these supports – in particular technological supports – are to the workplace. Preliminary research has shown that there are differences between 4-year and 2-year postsecondary institutions in terms of accommodations and supports they offer, with 2-year schools offering more supports overall, including greater Assistive technology (AT) supports across campus. Yet, regardless of institution type, few schools seem to facilitate transfer of supports to the workplace. In fact, most schools seem to offer little outside of traditional career counseling and job placement services (Harding, 2001). Technology as a support also does not seem to carry over into the work setting (Rumrill, 1999). Given this gap in supports between college and the workplace, it is unclear as to which supports (like AT for instance) would prove to be the most useful for students with disabilities once they enter the work environment.

Considering the profound impact of higher education on quality of life for people with disabilities, the proposed study is an attempt to contribute to the limited body of existing literature on supports for students with disabilities across certain kinds of postsecondary settings and how well these supports carry over into the workforce. The specific aim of this study to compare the transition to employment for students with disabilities in relation to their prior postsecondary settings (4-year versus 2-year schools) as measured by selected variables such as work earnings, type of job, AT supports used in school, AT supports used at work, and student perceptions of what AT, educational and student supports would be useful in employment.

Research Questions

- What are the differences in work earnings between graduates of 4-year postsecondary programs and graduates of 2-year programs?
- Do graduates of both 4-year and 2-year programs enter into jobs related to their declared

academic field of study?

- What kinds of Assistive technology programs (AT) did graduates of 4-year and 2-year postsecondary settings use in college, and what AT are they using in the workplace?
- What are the differences in transference of technological supports to employment between graduates of 4-year and 2-year postsecondary programs?
- Which technological, educational and social supports offered at the postsecondary institutions did graduates find to be most helpful and which do they think will have the most utility in the workplace?

Methods to Address Research Questions

- **Design**

The proposed study is cross-sectional in design. An in-depth exploratory survey will be administered to students with disabilities who recently graduated from 4-year and 2-year postsecondary settings in years 1999 and 2000. The objective of this survey is to compare students from both settings in regards to specified work outcomes. These outcomes are dependent variables and include work earnings, job relationship to field of study, AT use in the workplace, and perceived AT usefulness in the workplace. The independent variables are the type of postsecondary institution (4-year versus 2-year), number and kind of AT supports the institution offered, and which of these AT supports the student actually used.

- **Sampling**

For the purposes of recruiting graduates with disabilities from different institutions, systematic random sampling will be used in selecting students from lists of both 1999 and 2000 graduates at each college or university included in the sampling pool. Due to confidentiality issues, it is imperative to have the cooperation of the disability provider at each collaboration site. Therefore colleges will be recruited to participate from three sources: the RRTC collaborators, the pool of 21 Office of Postsecondary Education (OPE) demonstration projects (CFDA 84.333), and AHEAD members.

In cooperation with RRTC staff, we will recruit a minimum of ten postsecondary programs to participate, representing both 2-year and 4-year programs. The total number of students that we would like to recruit from each site is a minimum of 20 graduates, resulting in a total sample of at least 200 participating students. Each Office of Disability Services (ODS) provider will randomly select names from a list of their 1999 and 2000 graduates using a sampling procedure designed by project staff. Each selected person will receive a letter soliciting

their involvement in a 45-minute telephone interview, accompanied by a response card that asks their name, telephone number, and best time to be contacted for the interview. If the prospective participant expresses interest in participating, he or she will send back the postcard to OSU project staff or to the recruitment site itself if the site wants to conduct its own interviews and collect its own data. Notably this postcard will indicate the graduate's name, contact information, and a time of preferred contact. We will then contact the graduates of recruitment sites that do not want to collect their own data, and if consent is given, we will set up a time to conduct the interview. Trained research staff who have experience in interviewing techniques will conduct interviews.

- **Survey Design**

The survey itself will be a structured questionnaire adapted from the following sources:

- Post-Graduation Technology And Accommodations Transfer Needs Survey (Roessler & Rumrill);
- Work Experience Survey (Roessler & Rumrill);
- DO-IT Participant Survey (Burgstahler);
- Project HIRE Follow-up Survey (Izzo); and
- National Longitudinal Transition Study (SRI International).

The instrument will be pilot-tested with a sample of recent college graduates from a school not participating in the study. Validity of the instrument will be obtained through factor analysis. Reliability co-efficient will be obtained.

Procedures and Timelines

- **Recruit 2 and 4-year Postsecondary Sites (May – July, 2001)**

Participating 2 and 4-year postsecondary institutions will be recruited from the three sources: RRTC Collaborators, OPE project directors, and AHEAD members. To recruit AHEAD members, Carol DeSouza has agreed to solicit participating sites through an article published in the ALERT newsletter and through a conference flier disseminated at the July, 2001 AHEAD conference in Portland, OR. Each participating institution will agree to mail a packet to a randomly selected sample by following the pre-established sampling procedures. The packet will include a letter explaining the study and a self-addressed response card indicating the participant's willingness to participate in the study and contact information. The response card will be sent to staff at Ohio State University, unless the site agrees to conduct their own interviews with their graduates. To recruit RRTC Collaborators, Dr. Stodden will assist in recruitment efforts, and to recruit OPE

project directors, Dr. Margo Izzo will coordinate recruitment efforts. If the response from proposed recruitment sites is poor, then an optional recruitment strategy may be enacted. This strategy consists of recruiting participants via parents through the Minnesota Pacer Center. The request for participants would be advertised in Pacer newsletters and publications. Interested sons or daughters who are college graduates could then contact us directly if they wanted to participate in the study.

- **Develop Survey (May – June, 2001)**

Survey items that address our research questions will be selected from the survey instruments listed on page 5. The survey will be designed to be a 45-minute telephone interview. The draft survey instrument will be reviewed by staff at all the RRTC collaboration sites to assure the format and questions are clearly worded, complete and easily administered through a telephone interview.

- **Pilot Survey (June – July, 2001)**

A panel of national and local experts will assess the content and validity of the survey instrument. National experts that will be asked include Drs. Bob Stodden, Teresa Whelley, Tom Harding, Liz Getzel, Carol DeSouza, Phil Rumrill, and Sheryl Burgstahler. Local experts will include both consumers who work in disability support services, such as Jennifer Aaron and Evette Simmons-Reed and disability providers such as Wayne Cocchi, Director, Disability Services at Columbus State Community College. Each panel member will be asked for recommendations related to item clarity and appropriateness.

The instrument will then be field-tested with a minimum of 2 recent graduates from Ohio State University and 2 from one other collaboration site. These participants will be asked to assess the content and face validity of the instrument. They will be asked to report any problems with the format and wording and list other concerns that might compromise the validity of the instrument.

- **Revise Survey (July – August, 2001)**

Taking into consideration input from the pilot testing and reviewing processes, revisions will be made at the discretion of the researchers and select members of the expert panel of reviewers.

- **Train Phone Interviewers (July, 2001)**

Phone interviewers will be trained at the AHEAD conference for any recruitment sites interested in conducting their own interviews and collecting their own data. In addition, select OSU staff will be trained in appropriate interviewing techniques, either at the AHEAD conference or at on-site training sessions located at their home institutions.

- **Recruit Sample Participants (July – October, 2001)**

Respondents will be solicited using many of Dillman's (1978) suggestions for ensuring a good response rate. A cover letter will be sent on the institution's letterhead of the targeted respondent that is personalized and signed by a familiar person. The researcher will enclose a stamped, self-addressed return postcard for participants to send back, indicating their name, willingness to participate in the phone interview, phone number, and best time to contact the participant.

- **Conduct Telephone Interviews (July – December, 2001)**

The phone interview will be conducted by trained staff members of the home institution or by project staff of Ohio State University. The primary phone interviewer at Ohio State University, Jennifer Aaron, is a college graduate with a learning disability who has tried and currently uses a number of different AT software. It is expected that she will be able to establish rapport quickly with the graduates to be interviewed.

- **Complete Data Analyses (December, 2001 – February, 2002)**

All collected data will be sent to the University of Hawaii for analysis. It is anticipated that descriptive statistics (frequencies, means, etc.) will be applied to the data using SPSS or some other statistical software, and differences between 4-year and 2-year graduates will be examined for significance using t-tests.

Limitations and Option for Longitudinal Study

The proposed project is currently not set up to be longitudinal. However, the authors recognize that creating a longitudinal component such as administering the survey again in six months or a year's time over a period of two or three years to the same groups would greatly enhance study design and credibility of results. Should this study become longitudinal as a follow-up activity, then it may be possible to develop a model of effective AT supports used in both college and workplace settings using multivariate analyses. Another limitation is that students from adult vocational postsecondary schools were not included in the sample, and adding this component would supplement our survey results with greater information, particularly in the area of technology transfer. Lastly, another limitation is our proposed small sample size, which greatly limits our statistical power and ability to generalize findings.

Dissemination Activities

Findings will be reported through four methods:

1. A final report describing the methods, findings and implications,

2. Two short information briefs, the first designed for consumers and disability service providers, and the second for researchers,
3. Research article published in AHEAD or similar peer review journal,
4. Presentations at conferences such as the Pac Rim and AHEAD's July 2002 summit.

- **Final Report (April, 2002)**

The final report will describe the problem, the procedures to develop, pilot and refine the survey instrument, the response rates by institution, and the results. The final chapter of the report will provide the implications and recommendations for further research and practice for researchers and disability service providers, respectively.

- **Develop Information Briefs (January – April, 2002)**

Two implication briefs will be developed: the first brief will be designed for students and disability service providers, and the second brief will be for researchers. The first brief for students/disability service providers will include a short summary of the problem statement and research questions, followed by a larger implications section that describes promising practices. These promising practices will be the most frequently cited support strategies by the survey respondents that can be implemented by either the student or the disability services providers. These practices are suggested to improve the transfer of supports from postsecondary to employment settings by the respondents.

The second brief will be targeted to researchers. It will provide a more substantial review of the problem and research questions, the findings, and recommendations for future research. It is anticipated that this study will lead to a more wide scale study funded by RSA or NIDRR through a field-initiated RFP.

Develop Articles (February – June, 2002)

At least one article will be submitted to at least one of the following peer-reviewed journals: AHEAD, Career Development of Exceptional Individuals, and/or Disability Studies Quarterly.

Present Information at PAC RIM and AHEAD conferences (February and July, 2002)

Conference abstracts will be submitted to the Call for Papers for the Pac Rim conference and the AHEAD conferences.

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Phase II
Study Proposal Brief #23
(MS#060-H01)

University of Washington
DO-IT Project
Sheryl Burgstahler & Tanis Doe

Input from Stakeholders Regarding Professional Development for Faculty and Administrators Regarding the Inclusion of Students with Disabilities in Postsecondary Programs

Statement of the Problem

A postsecondary degree is a prerequisite for many challenging careers. Individuals with disabilities are significantly underrepresented in postsecondary education and careers when compared with non-disabled peers (Blackorby & Wagner, 1996; Stodden & Dowrick, 2000). However, career outcomes are significantly higher for those who earn a bachelor's degree (Reskin & Roos, 1990; Stodden, 1998; Yelin & Katz, 1994a, 1994b).

Students with disabilities attending postsecondary institutions in the United States face challenges in accessing the full range of educational opportunities. Even with legislation in place, (e.g., the Americans with Disabilities Act of 1990, the Rehabilitation Act of 1973), individuals with disabilities continue to face barriers to higher education. Students with disabilities are less likely than their counterparts without disabilities to stay enrolled or to earn a postsecondary degree or credential. In a survey of undergraduates who had enrolled in postsecondary education for the first time within the previous five years, 53% of students with disabilities had attained a degree or vocational certificate or were still enrolled, compared with 64% of their counterparts without disabilities. Among students with disabilities, 16% attained a bachelor's degree, 6% attained an associate's degree; and 19% earned a vocational certificate. The corresponding percentages for students without disabilities were 27%, 12% and 13%, respectively (Horn & Bobbitt, 1999).

Obstacles to equitable participation in postsecondary institutions include lack of adequate support systems, limited access to successful role models, lack of access to technology that can increase independence and productivity, inadequate support services, and negative attitudes and low expectations on the part of faculty and staff with

whom they interact In addition, many faculty and administrators have limited knowledge of disability rights laws and of appropriate accommodations for students with disabilities in the classroom. (Aksamit, Leuenberger & Morris, 1987; Burns, Armistead & Keys, 1990; Changing America, 1989; Dunn, 1996; Fonosch & Schwab, 1981; Leyser, Vogel, Wyland & Brulle, 1998; Malcolm & Matyas, 1991; NCSPES, 2000a, 2000b).

Professional development for faculty has the potential to improve the postsecondary outcomes for students (Caffarella & Zinn, 1999). Two of the best sources of information on faculty needs are students with disabilities and members of the faculty themselves. To date, no research study has clearly identified the content and formats that would be most effective in helping this group to develop the requisite knowledge and skills to fully include students with disabilities in academic programs. This information would be useful to educational administrators designing such professional development options for postsecondary faculty and staff. The research study described in this brief is designed to inform the development of faculty materials and strategies.

Research Questions

- What are the experiences of students with disabilities and postsecondary faculty/staff and students regarding the provision of academic accommodations?
- What is the understanding of students with disabilities and postsecondary faculty/staff regarding the legal right to accommodations for students with disabilities?
- What are student and faculty impressions about what instructors need to know about working with students with disabilities?
- What are the best content and format alternatives for professional development of postsecondary faculty and staff regarding working with students with disabilities?

Method

Focus group interviews were used to collect the opinions of key stakeholders, students with disabilities and faculty (Patton, 1987). The representativenes of the population involved in the focus groups helps serve as a needs assessment for materials and methods to better accommodate students with disabilities in higher education environments (Buttram, 1990). Focus group interviews are particularly appropriate for this type of qualitative research study (Morgan, 1988) in part because it can help us understand why people think the way they do and not just what they think. Focus groups can be used to generate a theoretical framework and to confirm or challenge hypotheses (Krueger, 1994, 1998). Focus groups allow the key

stakeholders to guide the generation of program development in effective ways. Input from focus group results can inform policy and practice in fairly quick and simple ways. Focus groups are faster than individual interviews, gather more information about concerns and divergent opinions than surveys and results are relatively easier to understand (Stewart & Shamdasni, 1990). The focus groups provided direct and indirect information on what content areas and methods would be useful for professional development. "Participants can qualify their responses or identify certain contingencies associated with their answers. Thus responses have a certain ecological validity not found in traditional survey research" (Stewart & Shamdasani, p.12).

The focus groups were approximately 90 minutes long and targeted two homogeneous groups, students with disabilities and faculty and staff. The shared characteristics of participants help to build saturation of opinions and perspectives (Morgan, 1988). Forty-five faculty members and staff participated in 12 focus groups. The seven student focus groups included a total of 21 students with disabilities. A range of disabilities were represented among the focus group participants, including blindness, paraplegia, traumatic brain injury, learning disabilities, Cerebral Palsy, deafness, ADHD (Attention Deficit Hyperactivity Disorder), and psychological disability. The institutions included are a diverse group and include research institutions, liberal arts institutions, and community colleges.

Focus group moderator guides were distributed to the focus group leaders. These guides included information and guidelines on human subjects concerns, recruitment, focus group moderation, focus group questions, and reporting data. The guides were intended to assure consistency by clarifying and standardizing the recruitment process, the group structure, and the role of the moderator. The leaders were given a script and instructed to follow the principles of non-directedness (Morse 1991). The moderator delivered the questions, structured by the moderator's guide, to obtain the views of the group members (Debus, 1990; Krueger, 1994; Morse 1991). Using participatory action research design, consumer feedback informed the development of focus group questions and will be solicited as results are summarized.

Timeline/Benchmarks	
January 1, 2000	Focus group sites selected; guidelines developed; and guidelines distributed to moderators, Sheryl Burgstahler.
April 1, 2000 Burgstahler.	Focus groups complete, transcripts delivered to Sheryl
July 1, 2000	Focus group interviews transcribed. Preliminary summary of data created. Feedback solicited. UW graduate students, Sheryl Burgstahler.
October 1, 2000	Data analysis using traditional methods and Nudist software conducted, graduate students UW and Tanis Doe.
January 1, 2001	Data analysis continued, Tanis Doe. Feedback on preliminary summary solicited from faculty and staff attending national conference.
April 1, 2001	Data analysis continued, Tanis Doe. Literature review in article drafted, Tanis Doe and Sheryl Burgstahler.
July 1, 2001 selected,	Data analysis completed. Target journals and conferences Tanis Doe and Sheryl Burgstahler
October 1, 2001	Article development continued. Consumer feedback solicited.
January 1, 2002	Article completed and submitted. Tanis Doe and Sheryl Burgstahler. Research brief completed and distributed by UH.
April 1, 2002	Presentation delivered at Pac Rim.
July 1, 2002	Presentation delivered at other conferences.
October 1, 2002	Presentation delivered at AHEAD.

Instrument and Data Analysis

Focus group questions were informed by reported experiences and challenges reported by students with disabilities and faculty. The focus group questions for faculty

and teaching assistants were:

- Describe your positive and negative experiences working with students with disabilities. Describe your familiarity with services on your campus that provides accommodations to students with disabilities and your level of satisfaction (if applicable) with these services. In which types of course/activities has it been especially difficult for you to provide appropriate accommodations?
- What is your understanding of legal responsibilities to accommodate students with disabilities?
- Have you ever heard of or been offered professional development opportunities to learn how to work with students with disabilities? Did you participate? What did it involve? How was it scheduled? Was it satisfactory?
- Tell me what you think faculty and teaching assistants need to know about working with students with disabilities.
- If you were offered professional development on accommodating students with disabilities, which method(s) of delivery would you prefer and why? Short presentation within a departmental or other meeting? ½-day workshop? Short informational brochure? Comprehensive reference book? Website? Informal discussion with colleagues? Email-based distance learning?

The focus groups with students with disabilities examined their experiences with receiving accommodations on their campuses, their specific positive and negative experiences working with faculty, and their impressions about how faculty could become better prepared to more fully include students with disabilities in their classes.

The focus group questions for students with disabilities were:

- Tell me what you know about the services on your campus that provide accommodations to students with disabilities and describe your level of satisfaction with these services.
- Describe the accommodations you have used and how you obtained them. Tell me about the courses or activities where it has been the most difficult to obtain appropriate accommodations.
- What is your understanding of the legal responsibilities of colleges and universities to accommodate students with disabilities?
- Tell me about specific experiences, positive and negative, that you have had with instructors (e.g., professors and teaching assistants) regarding accommodation issues.
- How could instructors become better prepared to include students with disabilities in their courses? What

information would be most useful for them to have?

Focus group interview data were analyzed using a qualitative approach where themes were identified from the participants' utterances guided by the objectives of the study (Lincoln & Guba, 1985; Mertens, 1998; Morse, 1997). Several levels of analysis were used to process the transcripts and summaries of focus groups. Traditional and computer assisted methods using a qualitative analysis computer program were used. (Ford, Oberski, &. Higgins, 2000; Miles, 1994; Richards & Richards, 1994, 1995; Tesch, 1990; Weitzman & Miles, 1994). Consumer feedback to preliminary results will be solicited from stakeholders and reviewed before the final report is made.

Products and Impact

The project will result in at least the following products:

- Published article(s) targeted at disabled student services officers at postsecondary institutions of higher education, postsecondary faculty and administrators, and/or postsecondary student services personnel.
- Research brief(s).

Presentations at Conference(s)

This research will inform those who wish to develop effective professional development for postsecondary faculty and staff and, ultimately, improve the postsecondary and career outcomes for students with disabilities. Specifically, results will be used in the DO-IT Prof project (U.S. Department of Education grant #P333A9900042) at the University of Washington, which is developing professional development materials and options for faculty and administrators nationwide.

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