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AUTHOR Hartman, Rhona C.; Redden, Martha Ross
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ABSTRACT

The fact sheet focuses on considerations when testing adaptations are needed, provides some facts about disability, and identifies a variety of adaptations of testing procedures which have been developed and successfully used in schools, vocational training programs, and on college campuses. Testing adaptations are discussed in terms of disability verification procedures, consistency in policy, and maintenance of academic and technical standards. The section on facts about disability distinguishes between students with hidden and visible disabilities and between students disabled since birth and recently disabled. Examples are then given of appropriate alternative testing procedures for hearing impairment (use of interpreter); vision impairment (dictation of answers to a proctor); mobility impairment (exam given in an accessible location); speech impairment (substitution of written for oral recitation exams); emotional impairment (individual test administration); learning disability (provision for alternate methods of recording answers). Also considered are the test environment, exam proctors and administrators, timing of tests, and laboratory performance and vocational-technical course mastery. Resources at the college level include the designated office for special services and the Association on Handicapped Student Service Programs in Postsecondary Education, and the HEATH (Higher Education and the Handicapped) Resource Center. (DB)

HEATH Resource Center
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MEASURING STUDENT PROGRESS IN THE CLASSROOM

A Guide to Testing and Evaluating Progress of Students with Disabilities

1985-1986 Edition

Measuring student progress in the classroom is an essential component of the educational process for all students. For disabled students modifications in ordinary testing procedures may have to be made in order to be valid. A disability such as a hearing, visual, motor, or speech or language impairment may interfere with the student's ability to deal with the testing, instructions, materials, or the mode of response. An educator who has satisfactorily developed a variety of procedures to evaluate students may need to modify or adapt them to accurately measure the progress of a particular disabled student. In considering such changes, **academic standards must not be compromised** in order that test results are valid and comparable to those of other students in the class. The disabled student's career, both in school and in future employment, is obviously influenced by academic performance, which should be measured by common standards.

This fact sheet addresses a variety of persons who are concerned with the evaluation of academic progress of disabled students—teachers, administrators, counselors, and the students themselves. **Measuring Student Progress in the Classroom** will focus on considerations when testing adaptations are needed, state some facts about disability, and identify a variety of adaptations of testing procedures which have been developed and used successfully in schools, vocational training programs, and on American campuses. Resources and references conclude the fact sheet.

CONSIDERATION WHEN TESTING ADAPTATIONS ARE NEEDED

Not all students can be fairly tested under standard administration of regular testing procedures. For example, printed editions, essay format, oral recitation, multiple choice answer sheets, or laboratory demonstration for students with visual, hearing, vocal, fine motor, or mobility impairment may require skills irrelevant to the course material being examined for those students. An alternative testing method adapted for some students will be a more accurate way to measure ability or achievement. Most educators have already successfully adapted or substituted course material presentation as well as testing procedures. As more and more disabled students take their places in the regular classroom, guidelines for adapting examinations become useful. Guidelines which follow center on verification of disability, consistency in policy, and maintenance of academic and technical standards.

Disability Verification Procedures

Both the disabled student and the teacher may question how one decides if the testing adaptation is warranted. While identifying exam adaptations is a shared responsibility between student and instructor, those experienced in teaching students with some disabilities have found it essential that a reliable outside resource be available to verify such needs when there is a question. This removes the burden from the two parties involved in the adaptation discussion. It is common in colleges and universities to ask that students register with a designated office for special services and provide medical or psychological verification of their disabilities. See Resource section for discussion of the role of Special Services Office. In elementary and secondary schools the Special Education programs serve this function.

Consistency in Policy

In order to ensure fairness and equality and to assure an individual student's ability to function in a testing situation, consistency is one of the most important factors when making adaptation policy. This ensures that the modifications do not give disabled students a competitive edge, but rather eliminate competitive disadvantage. Reasonableness and mutually agreeable procedures do not lend themselves to rules and regulations but are the shared responsibility between instructor and student within a framework as indicated below in the section on **Adaptations.**

Equity is enhanced by assuring that such procedures are agreed upon at the **beginning of the semester.** It is the student's responsibility to bring his/her special needs to the attention of the instructor as early as possible. A suggested universal practice is for instructors to maximize the chances of encouraging early discussions by making the following general announcement at the first few class sessions of each semester:

"I would appreciate hearing from anyone in this class who has a handicap which may require some special accommodation. I am resonably sure we can work out whatever arrangement is necessary, be it special seating, testing, or other accommodation. See me after class, or during my office hours".

Such an announcement not only gives "permission" to hesitant students, but sensitizes the entire class to the concept that individuals with disabilities are an integral part of the group, even though they may undergo different testing conditions. Some students do not consider themselves disabled "enough" to request accommodations, however, until after an exam. The longer the delay in developing adaptations, the less chance there is that the new procedure can be fair for that semster!

Maintenance of Academic and Technical Standards

It is important to everyone, disabled or not, that assessment of proficiency means the same thing for all students. A grade of "B" should carry the same meaning no matter which student earns it. A disabled student is being given no favor by "watering down" the course objectives for him or her—in fact that would be a definite disservice! Instructors generally clarify for the entire class what objectives **must** be met to successfully complete a course of study. Discussion with a particular disabled student may warrant additional clarification and involve careful consideration of key course elements so that classroom testing evaluates a student's understanding of course content instead of his/her manual dexterity or other physical attributes.

Verification of examination procedures by a neutral resource such as office of academic dean, student special services, or vice principal can protect academic standards. For example, an instructor who waives an exam or allows a student to "take home" a regular exam may be providing an inappropriate adaptation because he/she "feels sorry" for the student. Not only does this give a disabled student an unfair advantage, but it also prevents the student from making necessary educational choices based on true assessment of performance. Also, an instructor will no longer be assured it is the student's own work when the test has been taken away from the regular testing environment without supervision. If, despite reasonably developed adaptions, the student does not pass the exam, remember that he/she, just as any other student, may simply not have mastered the course material to the degree necessary to pass the exam. Disabled students have the same right as others to fail as part of their educational experience.

SOME FACTS ABOUT DISABILITY

When planning test adaptations for students, instructors should ask "In what way is the student's function limited by the disability?" and, "How can these functional limitations be eliminated or minimized?" Disability is often defined as a limitation of one or more of life's function which occurred at birth, through illness, or by accident to a person. The term **functional limitations** describes the degree to which the impairment of vision, hearing, mobility, speech, or information processing precludes normal behavior, even with prostheses and technological aids. There are other aspects of disability which are worth considerations. Some persons have a disability that is obvious such as a limp or paralysis which requires one to move about in a wheelchair. Others may have a hidden disability such as low vision, poor hearing, or low endurance threshold. Some limitations are temporary, some recurrent, and some permanent. The length of time that a person has been disabled or his/her age at onset of the disability may also have an influence on accommodations needed.

A student with a **hidden disability** such as a hearing impairment may be much more reluctant to approach a faculty member concerning test adaptations than a student who is accustomed to being viewed as disabled because he/she uses a wheelchair. A hearing impaired student may need to be assured that alternatives are available when indicated. This student is especially assisted by faculty-initiated announcements at the beginning of the course, which were referred to above.

Disabilities that fluctuate over time, those that are of **temporary** nature, **recur**, or are **precipitous** may create unique situations for both the student and the teacher. Quite often students are unaware of the ramifications of their temporary disability due to illness or injury. They may underestimate the time it takes to get to class on crutches or in a wheelchair (especially if the exam is given in a room other than the usual classroom). If a hand or eye has been injured the student may not realize that he/she may need additional time to complete the exam or term paper. The instructor and student should discuss appropriate adjustments needed while the disability lasts. The regular resources available for disabled students may be helpful in such occurrences of temporary disability.

Some **unpredictable disabilities** such as muscular dystrophy or arthritis frequently affect an individual on an intermittent basis. During periods of remission no adaptation may be needed in testing situation. During the acute stage, however, some alterations in the regular procedure described below may be requested. Special understanding and procedures may be necessary to deal with the unpredictability of the recurrence.

If a student in a postsecondary setting has been **disabled since birth** or early childhood, it can be expected that the student has learned through adaptations over a period of years. Many of these adaptations have been refined to the extent that the student hardly realizes that he/she is using them. Such students with longstanding disabilities are usually the best sources for developing

adaptations for a particular course. They can be counted on to describe what has worked best in the past under a variety of situations.

A recently disabled student may still be learning how to adjust to his/her disability whether permanent or temporary. The student may have been well into his/her academic career and developed strategies with which he/she was comfortable but which may no longer serve after illness or accident. A newly disabled student may return to the campus before his/her condition has stabilized. There may be changes during a semester in the student's ability to function. During such a period in a student's life an extra degree of understanding and adaptation may be necessary. A newly disabled student may also be having difficulty adjusting to new modes of operation and may fluctuate from time to time in decisions about what sorts of adaptations work best. That student and the faculty member should rely upon the experience of other disabled students on the campus and the Disabled Student Services Office. If such resources are not available on campus, they may be found on other larger campuses.

EXAMPLES OF ALTERNATIVE TESTING PROCEDURES

Taking a test under standard conditions (usually a written exam) requires certain skills apart from those being measured by the test instrument. Such test taking skills are not intellectual strategies for answering questions; rather they are those specific skills involved in completing a regular written exam. Guidelines for adapting examinations to eliminate discrimination against disabled students with a variety of functional limitations follow. The test environment, exam proctors, and extending the time allowed for completion of the exam are appropriate adaptations for many and will be discussed separately in this section.

Hearing Impairment. A hearing impairment may be caused by a physical diminution or loss of hearing ability or by a perceptual problem that causes the brain to process incorrectly what is heard. Such an impairment may cause the student not to hear or comprehend rapidly spoken information, such as procedural instructions, descriptive background, or questions posed by other students and answers given before the actual test begins.

Adaptations

- Student may be given written instructions or information ordinarily read aloud by examiner.
- Oral or sign language interpreter may translate oral instruction and information. Interpreter DOES NOT interpret the meaning of the Written test questions, or supply leading information.

Vision Impairment. A visual impairment may be caused by a physical diminution or loss of vision or by an inability of a person to perceive what is viewed through the eye. Such an impairment may cause a student not to see or comprehend written material which may include announcement of test dates, procedural information, and content of the examination itself. In addition, visual perceptual problems (which may include inability to discriminate figure/ground, sequencing and letter reversals, and similar shaped letters) may preclude comprehension of printed test materials and/or completion of a standard answer sheet or essay exam in the usual manner.

Adaptations

- Arrange for special edition of the exam, i.e. on tape, individually read, larger print, or braille.
- Student may use electronic optical aids, such as a Visual-tek, which enlarge the print; or non-optical aids, such as an Optican or a Kurzweil Reading Machine which changes the form of the print to be usable for people with visual impairments.
- Student may record answers by typing or taping.
- Student may dictate answers to a proctor who marks the answer sheet or writes the essay.
- Where spelling and punctuation are related to course objectives, student and instructor may determine a way for grammar to be evaluated within the parameters of the adaptation.

Mobility Impairment. Mobility impairment broadly describes any disability which limits functions of moving in any of the limbs or in fine motor ability. It may involve limitations in performing certain acts such as reaching and entering the exam site, sitting for long periods of time, manipulating test materials-scratch paper, pencils, writing, marking small answer ovals, writing and computing numbers and transferring them to exam paper.

Adaptations

- Arrange for exam to be given in accessible building and classroom.
- Arrange for a proctor to assist manipulation of test materials, marking exams, and writing numbers and/or symbols as directed by student.
- Arrange for alternative methods of recording answers such as typing or taping.

Speech Impairment. A speech impairment may cause a student to be unable to speak, to mispronounce certain words, to speak slowly or in a manner hard to understand. Such an impairment rarely restricts a student in a written examination; however, depending upon the extent of the impairment, it may have a great influence on oral recitation types of examinations.

Adaptations

- Written examinations might be substituted for oral recitation exams.
- Student may write his/her response for an oral recitation and have that presentation read by an interpreter.
- Student may use an auxiliary aid such as a word board or interpreter for classroom participation.

Emotional Impairment. An emotional impairment may cause the student problems in waiting patiently, controlling anxiety, remaining quiet in a testing situation, or exhibiting appropriate behavior during the exam. Most people have test anxieties, which sometimes can enhance exam

results. For some, however, stress is so severe that it seriously limits performance or results in behavior that would seriously distract other candidates.

Adaptations

- Administer regular exam individually within the regular time limit.
- Determine an alternative task to be completed so long as requirements and objectives are suitably met.
- Refer student to study skills center or learning center to develop experience with various test formats for future exam-taking compentency.

Learning Disability. Learning disability is a documented perceptual handicap which affects the ability to process information in people of average to above average intelligence. Different individuals have difficulties in one or several separate areas of receiving or sending information. These may include spelling, reading, handwriting, organizing, following directions, spacial relations, math; even understanding social cues.

Adaptations

- Arrange for alternate methods of recording answers such as taping or typing.
- Permit test to be given individually in a quiet room without distractions.

Test Environment

Unless absoutely necessary, students should be allowed to take an adapted test in the same classroom at the same time with the other students. If the adaptation requires the exam to be administered in a place other than the regular exam site, efforts should be made to provide a setting which is equally conducive to concentration. Such a setting should be free from interruptions and distractions. The place should also provide adequate privacy for working with a reader or writer, if necessary, or with such devices as typewriter or talking calculator. Sensible and sensitive proctoring should be provided. A student should not be expected to cope with taking the exam in a hallway, library main reading room, or department office if phone, visits, or other distractions will be allowed. A good alternative is a vacant classroom with the door closed.

Exam Proctors and Administrators

Objective test administration may best be assured by arranging for a proctor other than the student's instructor, reader or interpreter. Having one's instructor administer the exam individually can be an intimidating experience for some students and could put him/her at a disadvantage vis-a-vis the relative anonymity of group administration of a test in large classes. It may be difficult to ascertain that a vision impaired student's regular reader has maintained objectivity. Many schools have designated a person to assist in making necessary arrangements for selection and training of proctors.

Training of proctors who will administer exams adapted for various functional limitations may include:

- orientation in ways to read aloud
- practice in writing exactly what is dictated
- discussion of methods of maintaining integrity and ethics of test situation

Timing

Some adaptations to conventional test formats require that the examinee be granted additional time to complete the exam. The act of reading braille or large print takes longer than reading a standard typed page. Similarly, listening to a tape, or dictating an answer, takes longer than writing answers in longhand. Educators and disabled students generally agree that extended time is frequently necessary, but guidelines to determine what is reasonable are often sought. There are no rigid rules for determining how much additional time should be given; rather, extended time should flexibly permit **reasonable progress without dawdling**. Factors to be considered in determining a reasonable time extension include:

- type of accommodation (device? personal aide? other?)
- exam format (short answer? multiple choice? open book? essay? paper?)
- experience of the student (prior education or onset of disability)
- purpose of the course (personal development? career preparation?)

For example, a visually impaired student who is used to an electronic optical aid may find that using one for an open book calculus exam takes an inordinate amount of time. A student with residual vision, the instructor, and perhaps a special service person might further adapt the situation by printing the exam in large type. In addition, an aide might be used to locate the page in the calculus table at the direction of the student so that the time-consuming search for such information could be reduced. The proctor-aide might read the exam to the student. The electronic optical aid may not be the right device for this student for this exam if his vision is unstable.

A student who (due to disability and prior education) has limited experience in taking short answer or multiple choice exams might need to have extended time until he/she masters those skills necessary to write an essay. Referral to the school's study skills center might help.

A newly disabled person may require a lengthy time extension at first,but that might be reduced as experience is gained.

The time limit imposed on a person who is taking an accounting course (whose manual dexterity requires additional time to punch numbers into a calculator) may vary depending upon whether one is taking the course to become an accountant or to be able to manage his/her own financial affairs. Setting a reasonable time limit for a career preparation course is necessary to prepare for similar limitations in the "real world "

Laboratory Performance and Vocational-Technical Course Mastery

In many cases adapting the scientific or computer laboratory or vocational-technical work station to be accessible will enable most disabled students to perform their own work; and this is the optimum arrangement. Students

whose functional limitation prevents this, however, may need other adaptations. Many technological devices of varying degrees of sophistication have been developed. They range from talking thermometers to string and glue raised line models. These should be explored as necessary. Students who cannot use upper and lower limbs, and those with severe visual impairments may participate in scientific exploration with a full-time class assistant to perform experiments under the student's direction. Arrangements for this must be made at the beginning of the semester so that by exam time both student and assistant understand their roles. The student must be able to observe the data acquisition as well as direct the experiment and report the results to have his/her lab performance evaluated. An excellent resource for all lab sciences is **Teaching Chemistry to Physically Handicapped Students** listed in the Reference section of this fact sheet. For adaptations in work stations and technical courses consult the Wisconsin Vocational Studies Center Catalogue, **Tools, Equipment, and Machinery**. See Reference section.

RESOURCES

Designated Office for Special Services

Disabled students, their advocates, as well as teachers at all levels of instruction agree that it is necessary to have an office in their institution which is officially designated to verify disabling conditions, mediate requests for adaptations, verify examination procedures, and facilitate the agreed upon adaptations. At the elementary and secondary level the Special Education personnel usually do this. Colleges, universities, and technical institutes often rest these responsibilities in an Office named variously Student Services, Handicapped or Disabled Student Services, Enabler, Handicappers, or Special Student Services.

A number of such designated Offices have developed a system for simplifying classroom examination adaptations and test administration. Usually multiple copies of a standardized form are available for students registered with the Office, where the disability has been verified and documentation placed on file. For each course student and instructor complete the form and state when the exam is to be given and what adaptations or assistive devices are necessary and permitted. That Office is available to suggest adaptations for a new situation or mediate any disagreement that occurs. The Office can also assure that the student is adequately tested. The Office is prepared to facilitate necessary arrangements given adequate lead time. Many Offices have space and will provide trained proctors to administer tests individually. Brailled, recorded, or large print exam editions might be arranged there. Assistive devices (such as Visual-tek) which might ordinarily be available in the library might be brought for use in the exam room through the Office.

Association on Handicapped Student Service Programs in Postsecondary Education

AHSSPPE is an association of leaders in the field providing services to disabled students on college and technical school campuses. Information sharing is a key element of the goal which is to upgrade the quality of services available to disabled students. AHSSPPE holds annual national conferences, the proceedings of which are available. Membership fee includes the newsletter **ALERT**, **Bulletin**, and **Membership Directory**. Executive Director, Jane Jarrow will be able to provide the contact information about a member near your institution who can be a resource about particular testing situations. Association on Handicapped Student Service Programs in Postsecondary Education (AHSSPPE) Box 21192, Columbus, OH 43221, (614) 488-4972.

HEATH Resource Center

HEATH Resource Center is the national clearinghouse on postsecondary education for handicapped individuals. It publishes a newsletter three times a year; develops and disseminates fact sheets such as this one, and packets of materials of concern to disabled students, postsecondary administrators, faculty, campus support providers, and advisors of potential students. All publications are free. HEATH can provide you with contact information about resource people near your institution who have expressed willingness to confer about a particular testing situation. HEATH Resource Center, American Council on Education, One Dupont Circle, Suite 670, Washington, DC 20036, (202) 939-9320 or Toll Free (800) 54 HEATH.

REFERENCES

Postsecondary Education and Career Development, A Resource Guide for the Blind, Visually Impaired, and Physically Handicapped, National Federation of Blind, (1981). Prepay $4.95 to NFB, 1800 Johnson Street, Baltimore, MD 21230.

Teaching Chemistry to Physically Handicapped Students, The American Chemical Society, (1981). Available free while supply lasts from ACS, Department of Educational Activities, 1155 16th St., NW, Washington, DC 20036, (202) 872-4600.

Tools, Equipment, and Machinery Adapted for the Vocational Education and Employment of Handicapped People, (1981). Looseleaf 787 page binder available from Vocational Studies Center, University of Wisconsin-Madison, 265 Educational Sciences Building, 1025 W. Johnson St., Madison, WI 53706. Prepay by check or purchase order $33.00 plus $3.30 for shipping and handling.

Prepared by Rhona C Hartman and Martha Ross Redden June 1982, updated June 1985

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HEATH PUBLICATIONS LIST 1987

The *HEATH* Resource Center operates the National Clearinghouse on Postsecondary Education for Handicapped Individuals. *HEATH* is an acronym for Higher Education And The Handicapped. Support from the United States Department of Education enables the Center, a program of the American Council on Education, to serve as an information exchange about educational support services, policies, procedures, adaptations, and opportunities on American campuses, vocational-technical schools, adult education programs, independent living centers, and other training entities after high school. The Center gathers and disseminates this information so that disabled people can develop their full potential through postsecondary education and training if they choose.

FACTSHEETS

____ Access to the Science Lab and Classroom
____ Audiovisual Materials
____ Career Planning and Placement Strategies
____ Cost Effective Ideas (for Administrators)
____ Education beyond High School—the Choice is Yours
____ Education For Employment (Vocational Education)
____ Financial Aid and Disabled Students
____ Hearing Impaired Students in Postsecondary Education
____ Learning Disabled Adults in Postsecondary Education
____ Measuring Student Progress in the Classroom
____ Opportunities after High School for Persons who are Severely Handicapped
____ Strategies for Advising Disabled Students
____ Vocational Rehabilitation Services—a Student Consumer's Guide

Single copies of *HEATH* fact sheets and newsletters are free to those who request them. Permission to duplicate *HEATH* materials is not necessary and is definitely encouraged.

OTHER RESOURCES

____ College Freshmen with Disabilities: Preparing for Employment
____ Newsletter subscription
____ Newsletter back issues as available
____ State Resources List (indicate which state) ____

SPECIAL RESOURCES

The following publications may be ordered in bulk if you check a specific use such as:

__ workshop
__ student resource room
__ conference
__ parent center
__ faculty development
__ other

____ *HEATH* Brochure
____ *HEATH* Resource Directory
____ *HEATH* National Directory of Transition Specialists
____ How to Choose a College: Guide for the Student with a Disability

ALTERNATE MEDIA

Current *HEATH* publications are available on cassette from *HEATH* or through the Martin Luther King Regional Library (Washington, DC), a unit of the National Library Service for the Blind and Physically Handicapped. Please send Audio Cassette ____.

HEATH materials are also available in **computer media** for MS-DOS, DEC or CP/M compatible computers.

Computer Media:

__ MS-DOS __ CP/M(specify format) __ DEC

(Please enclose a blank 5¼" DD/DS diskette [DD/SS for DEC])

Please mail back to the HEATH Resource Center, One Dupont Circle, Suite 800, Washington, DC 20036-1193. SpecialNet users may order directly to HEATH.ACE. CompuServe subscribers may order via Easyplex ID 73257,14.

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