

FOIA MARKER

This is not a textual record. This is used as an administrative marker by the William J. Clinton Presidential Library Staff.

Collection/Record Group: Clinton Presidential Records

Subgroup/Office of Origin: Americorps

Series/Staff Member: General Files

Subseries:

OA/ID Number: 24237

FolderID:

Folder Title:

[Asheville - ADA Accommodation Request] [3]

Stack:

S

Row:

66

Section:

1

Shelf:

1

Position:

2

ACCESSIBLE

DOCUMENTATION

Advertising Accessibility: Tips for Successful Marketing

Advertising the physical access of a facility, program, or meeting should be included in your organization's overall public relations strategy and targeted to specific groups.

The following is applicable to all brochures, print ads, flyers, subscriptions, registration forms, and press releases:

1. Note wheelchair accessibility by using the universal symbol, which indicates access for people with limited mobility. Use the symbol only if the facility and/or area is accessible to people using wheelchairs, including entrance, restrooms, assembly areas, etc.



2. If the entrance is accessible but restrooms are not, you can use the text

- ◆ Wheelchair accessible entrance; inaccessible restrooms.

3. For ticket orders and subscription series, indicate if wheelchair accessible or non-step seating is available. Include a floor plan with designated wheelchair-seating areas and the universal access symbol.



4. Include the following on registration forms:

Please check below any accommodations you may require, and return this form by [specify date]:

(Optional: Include your phone number so that a member of our staff may contact you.)

- Wheelchair accessible seating
- Wheelchair accessible room
- Wheelchair accessible transportation
- Accessible parking
- Print materials provided in large type
- Print materials provided in braille
- Print materials recorded on cassette tape
- Assistive listening system
- Sign language interpretation
- Oral interpretation
- Personal assistance
- Vegetarian meals
- Kosher meals
- Other (Please specify): _____



5. If events are sign language interpreted, include the interpreting symbol on all announcements.

Advertising Accessibility: Tips for Successful Marketing

6. When using access symbols, place them where general information is given about the organization or program. The symbols should be displayed prominently. Integrate symbols into the design of an ad, brochure, or flyer when possible.

If your organization has display materials and literature available, you may want to include signage that informs people about the access information that is available.

7. If access information or symbols are edited from ads, text, or press releases, follow up with the newspaper, magazine, or media outlet. Let them know that access information is as important as the phone number or address of your organization.
8. Using access symbols always works better than text that describes access.
9. In all ads, include a phone number for more information about accessibility next to the symbols (if it is different from the general number for information).
10. Include "TTY" and the symbol next to the number for deaf and hard of hearing people:



- ◆ 555-1234 (TTY)

If the number is the same for general information:

- ◆ 555-1234 (Voice/TTY or V/TTY)

11. If a TTY is not available:

- ◆ 555-1234 (Voice only or V only)
- ◆ You may indicate your state's relay system 800 phone number.

12. If audio description and/or an assistive listening system is available, include the symbols for those, or this line of text:

- ◆ Assistive listening system is available.
For more information contact 555-1234 (V/TTY).



- ◆ Audio description is available.
For more information contact 555-1234 (V/TTY).



Advertising Accessibility: Tips for Successful Marketing

Important Considerations:

1. Make sure that all box office personnel, ushers, and staff are familiar with your organization's overall physical access and access services.
2. Language: Use words that reflect dignity in reference to people with disabilities in flyers, press releases, radio and television ads, and live interviews that promote programs.

Positive Example: [in radio spot] The Breed's Hill Theatre Company is wheelchair accessible. Several performances are ASL interpreted. For more information about performances contact 555-1234 Voice/TTY

Negative Example: The Breed's Hill Theatre Company is handicapped accessible and performances are interpreted for the deaf.

3. Work with your public relations staff, advisory boards, and volunteers to do targeted advertising to older adults and people with disabilities. Some resources include:
 - ◆ Newsletters that target people who are older and/or people with disabilities
 - ◆ Social service and community organizations that work with older adults and people with disabilities
 - ◆ Advocacy and recreational organizations whose membership is primarily made up of people with disabilities and their friends and families
 - ◆ Schools, colleges, and parent groups
 - ◆ Radio reading service
 - ◆ Radio or television shows
 - ◆ Electronic bulletin boards that advertise accessible events or services

Based on a checklist developed by
Lisa Thorson/Very Special Arts Massachusetts, 1990



American
Foundation
for the Blind

Governmental Relations
1615 M Street, NW
Suite 250
Washington, DC 20036
Tel: 202.457.1487
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*Incorporated
in 1921*

Options for Producing Documents in Accessible Formats

prepared by

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and

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Legislative Assistant

December 22, 1993

In keeping with our goal to achieve equality of information access for people who are blind or visually impaired, this document is available, upon request, in the following accessible formats: IBM computer diskette, braille, cassette, large print.

The Americans with Disabilities Act (ADA) requires the removal of communication barriers by providing information in accessible formats. Title I of the ADA requires employers to provide accessible documents as reasonable accommodation. Titles II and III require state and local governments and places of public accommodation to remove communication barriers through the provision of accessible documents as auxiliary aids or services.

Section 504 of the Rehabilitation Act clearly mandates that federally-conducted or federally-financed programs be carried out in such a way that no individuals are excluded from participation in such programs. The 1992 amendments to the Rehabilitation Act make a clear statement that "It is the policy of the United States that all programs, projects, and activities receiving assistance under this Act shall be carried out in a manner consistent with the principles of . . . respect for the privacy, rights, and equal access (including the use of accessible formats)."

For people who are blind or visually impaired, accessible formats mean: cassette, large print, Braille, or electronic diskette. Such formats allow an individual to scan, reread, and digest complex documents in the same manner as a person who uses print copies.

Agencies may prefer to contract out their accessible document requirements. Although this can be easier in many respects, and may be more appropriate for larger volume runs, costs for contract producers vary according to such factors as the number of copies required, turnaround time, whether proofreading is required, types of paper, binding and cover materials used, and whether the original copy is provided electronically or in hardcopy format. Costs can also be affected by the complexity of the material to be produced (e.g., tables, foreign languages, and/or use of mathematical notation vs. straight literary text), and by whether electronic versions are supplied to the producer in braille translated and formatted files vs. ordinary ASCII or wordprocessing files. Producers can often handle packaging and mailing of materials at an additional fee.

The following guidelines are for the in-house production of accessible documents.

*Electronic
Documents (E-text)*

Perhaps the easiest method of making documents accessible to many blind or visually impaired persons is through the use of e-text, i.e., electronic text in an IBM ASCII file on disk or access to the document through an online telecommunications network (often referred to as a "bulletin board system"). In either case, blind or visually impaired persons who have access to a PC can read the document using synthetic speech, electronic braille display, a large print computer display or they can produce hardcopy braille. The access technology would be attached to the end user's PC.

Documents available in e-text should be in IBM ASCII or WordPerfect format, using Courier 10cpi (10-pitch) formatted for an 80 character line. Tabular material should be decolumnized, and graphics, text boxes, etc. should be deleted and explained in text if necessary. Bullets (•) should be replaced with a "*" or a "-"; other extended ASCII characters such as the "\$" for "Section" should be converted into text or deleted. WordPerfect documents should be created using proper WordPerfect formatting codes (such as the F4 key for a left indent, rather than simply using the tab key or spacebar as on a typewriter). This is necessary because braille translation software (such as Duxbury for WordPerfect) relies on proper use of WordPerfect commands to automate the formatting of a braille document.

Obviously, if the document was on a bulletin board system, the blind or visually impaired person would use his/her own modem and communications software to access the system. The bulletin board system must, however, be text based rather than graphically presented. Computer information networks such as Prodigy and America Online are graphically presented and are, therefore, inaccessible to blind or visually impaired computer users since screen access technology is currently unable to recognize graphic or bit-mapped characters.

Braille

For individuals who must have braille (such as many deaf-blind persons or for those who prefer braille access because of the complexity of the material or the lack of a personally-owned PC, braille documents can be created using a PC, braille translation software, and a braille printer. The software costs about \$500, and printers range from \$1500 to over \$60,000 depending upon speed and other features. A braille printer in the \$10,000 to \$20,000 range should be adequate for most users. The use of software such as Duxbury for WordPerfect can automate the braille production process such that many documents (such as letters, memos, and *Federal Register* notices) can be printed in braille by secretarial personnel who do not have a knowledge of braille or who have limited computer skills. If the input document is of a complex format, however, such as a text box over multiple columns, a sophisticated knowledge of braille translation software and formatting codes would be required.

Large Print

Large print documents can easily be produced using a scalable font from any good wordprocessing program (such as Wordperfect) and a standard laser printer. Using the document enlargement option on a photocopier will usually yield unsatisfactory results. To obtain the best results follow these guidelines:

- One page of print (11pt type) equals approximately three pages of large print (18pt type), depending on the density of the text on the page.
- Good contrast is critical but white paper produces too much glare. The best contrast with the least glare is achieved on light yellow, non-glossy paper, such as copy paper. To produce a more aesthetic looking document, you may use an off-white paper that will still give good contrast while producing less glare than white. Avoid dark colors and shades of red. Double-sided documents (if print doesn't bleed through) will produce a less bulky document.
- Paper should not be larger than standard 8 1/2" x 11". With one inch margins, lines will be 6" long. Longer lines will not track well for individuals who must use a magnifier.
- Remove formatting codes that will make the document more difficult to read. For example, centered text could be difficult to track. All text should begin at the left margin. Avoid columns. If they are absolutely necessary, there should be minimum space between columns. Use dot leaders for tabular material (ALT F6 twice in WordPerfect).
- Use at least 1 1/4 (1.25) spacing between lines. Right margin justification can produce uneven spacing between letters/words. Left justification maintains uniform spacing across lines.
- There is no standard for typeface or point size. For more universal access, use 18 point type; anything larger would make text too choppy to be read comfortably. Use a good strong typeface. Do not use italics, fine or fancy typefaces. Helvetica/Swiss is good; Dutch/Times Roman is also acceptable. Do not use compressed typefaces; there should be normal "white space" between characters.
- Use upper and lower case letters. We are taught to read upper and lower case text; all upper case print is difficult to read even for a person without a visual impairment.

This sample is Swiss Bold 18pt type; line spacing is 1.25; upper/lower case; text is justified only at left margin for uniform spacing across lines. Dot leaders make tabular/columnar material easier to read.

Chapter 1 Page 25
XYZ Center 202-123-4567

[These large print instructions were compiled with the assistance of Patricia Beattie, 1st Vice President of the Council of Citizens with Low Vision International.]

Recordings

Audio materials can be produced either commercially or by utilizing the assistance of volunteer organizations which record material on tape. Agencies sometimes record material in-house, and purchase a high speed tape duplicator (about \$1,000 to \$2,000) which is used to make cassette copies of the master tape. The cost of a duplicator can be higher depending upon the number of copies produced on a single run, and whether the duplicator can produce standard speed two-sided copies or half speed four-sided Library of Congress format copies. Although unit costs can be reduced by using the 4 track, half speed Library of Congress format, this will require the user to use a specially designed playback machine.

By following a few simple guidelines for selecting readers and creating your recordings, you will be able to successfully record most simple documents. There is no legal definition of a qualified reader, however, the American Foundation for the Blind offers its definition.

- The reader should be proficient in the language being recorded.
- The reader should be familiar with the subject. Someone from a mall management team, for example, would be a logical person to record a cassette for a shopping mall. He/she would be familiar with the names of the stores and restaurants, with the layout of the mall, and with other features that the business wished to communicate to its customers.
- The reader should have good diction. Recording should be done in a conversational tone and at a conversational pace.

In addition,

- The reader should familiarize him/herself with the material to minimize stumbling and hesitation.
- The reader should not editorialize. When recording a document, it should be read in full. Graphic and pictorial information available to sighted readers should be made available in the narrated text. Tables and charts whose contents are not already contained in text should be converted into text and included in the recording.
- The reader should spell difficult or unusual words, and words of foreign origin.

Portrayal Issues

Please consider the following when writing about people with disabilities:

- 1. Do not focus on a disability** unless it is crucial to a story. Avoid tear-jerking human interest stories about incurable diseases, congenital impairments, or severe injury. Focus instead on issues that affect the quality of life for those same individuals, such as accessible transportation, housing, affordable health care, employment opportunities, and discrimination.
- 2. Do not portray successful people with disabilities as superhuman.** Even though the public may admire superachievers, portraying people with disabilities as superstars rises false expectations that all people with disabilities should achieve at this level.
- 3. Do not sensationalize a disability** by saying afflicted with, crippled with, suffers from, victim of, and so on. Instead, say *person who has multiple sclerosis* or *man who had polio*.
- 4. Do not use generic labels** for disability groups, such as "the retarded," "the deaf." Emphasize people, not labels. Say *people with mental retardation* or *people who are deaf*.
- 5. Put people first, not their disability.** Say *women with arthritis*, *children who are deaf*, *people with disabilities*. This puts the focus on the individual, not the particular functional limitation. Because of editorial pressures to be succinct, we know it is not always possible to put people first. If the portrayal is positive and accurate, consider the following variations: disabled citizens, non-disabled people, wheelchair-user, deaf girl, paralyzed child, and so on. Crippled, deformed, suffers from, victim of, the retarded, infirm, etc. are **never** acceptable under any circumstances.
- 6. Emphasize abilities** not limitations. For example: *uses a wheelchair/braces*, *walks with crutches*, rather than confined to a wheelchair, wheelchair-bound, or is crippled. Similarly, do not use emotional descriptors such as unfortunate, pitiful, and so forth.

Disability groups also strongly object to using euphemisms to describe disabilities. Some blind advocates dislike partially sighted, because it implies avoiding acceptance of blindness. Terms such as handicapable, mentally different, physically inconvenienced, and physically challenged are considered condescending. They reinforce the idea that disabilities cannot be dealt with upfront.

- 7. Do not imply disease** when discussing disabilities that result from a prior disease episode. People who had polio and experience after effects years later have a *postpolio disability*. They are not currently experiencing the disease. Do not imply disease with people whose disability has resulted from anatomical or physiological damage (e.g., person with spina bifida or cerebral palsy). Reference to disease associated with a disability is acceptable only with chronic diseases, such as arthritis,

Guidelines for Reporting and Writing about People with Disabilities

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Parkinson's disease, or multiple sclerosis. People with disabilities should **never** be referred to as patients or cases unless their relationship with their doctor is under discussion.

8. Show people with disabilities as active participants of society. Portraying persons with disabilities interacting with nondisabled people in social and work environments helps break down barriers and open lines of communication.

Appropriate terminology

Listed below are preferred words that reflect a positive attitude in portraying disabilities.

AIDS. Acquired immunodeficiency syndrome is an infectious disease resulting in the loss of the body's immune system to ward off infections. The disease is caused by the human immunodeficiency virus (HIV). A positive test for HIV can occur without symptoms of illnesses which usually develop up to 10 years later, including tuberculosis, recurring pneumonia, cancer, recurrent vaginal yeast infection, intestinal ailments, chronic weakness and fever, and profound weight loss. Preferred: *people with AIDS or living with AIDS.*

Blind. Describes a condition in which a person has loss of vision for ordinary life purposes. *Visually impaired* is the generic term preferred by some individuals to refer to all degrees of vision loss. Use *boy who is blind, girl who is visually impaired, or man who has low vision.*

Cleft lip. Describes a specific congenital disability involving lip and gum. The term hare lip is anatomically incorrect and stigmatizing. Use *person who has a cleft lip or has a cleft palate.*

Congenital disability. Describes a disability that has existed since birth but is not necessarily hereditary. The term birth defect is inappropriate.

Deaf. Deafness refers to a profound degree of hearing loss that prevents understanding speech through the ear. *Hearing impaired or people with hearing loss* are the generic terms preferred by some individuals to indicate any degree of hearing loss--from mild to profound. It includes both hard of hearing and deaf. Others prefer deaf or hard of hearing. Hard of hearing refers to a mild or severe hearing loss that may or may not be corrected with amplification. Use *woman who is deaf, boy who is hard of hearing, or people who are hearing-impaired.*

Developmental disability. Any mental and/or physical disability starting before age 22 and continuing indefinitely. It limits one or more major life activities such as self-care, language, learning, mobility, self-direction, independent living, and economic self-sufficiency. Term includes individuals with mental retardation, cerebral palsy, autism, epilepsy (and other seizure disorders), sensory impairments, congenital disabilities,

traumatic accidents, or conditions caused by disease (polio, muscular dystrophy, etc.). May be the result of multiple disabilities.

Disability. General term used for a functional limitation that interferes with a person's ability, for example, to walk, lift, hear, or learn. It may refer to a physical, sensory, or mental condition. Use as a descriptive noun or adjective, such as *persons who are mentally and physically disabled* or *man with a disability*. Impairment refers to loss or abnormality of an organ or body mechanism, which may result in disability.

Disfigurement. Refers to physical changes caused by burns, trauma, disease or congenital problems.

Down syndrome. Describes a chromosome disorder which usually causes a delay in physical, intellectual, and language development. Usually results in mental retardation. Mongol or mongoloid are unacceptable.

Handicap. Not a synonym for disability. Describes a condition or barrier imposed by society, the environment, or by one's own self. Handicap can be used when citing laws and situations but should not be used to describe a disability. Say *the stairs are a handicap for her*. (Note: *Accessible parking* is preferred to "handicapped parking.")

Head injury. Describes a condition where there is temporary or long-term interruption in brain functioning. Use *persons with head injury*, *people who have sustained brain damage*, *woman who has traumatic brain injury*, or *boy with an acquired head injury*.

Learning disability. Describes a permanent condition that affects the way individuals with average or above-average intelligence take in, retain, and express information. Some groups prefer *specific learning disability*, because it emphasizes that only certain learning processes are affected. Do not say slow learner, retarded, etc. Use *has a learning disability*.

Mental disability. The Federal Rehabilitation Act (Section 504) lists four categories under mental disability: psychiatric disability, retardation, learning disability, and (physical) head trauma. Use these four terms for specific instances; otherwise, mental disability or cognitive impairment is acceptable.

Mental illness. Words such a crazy, maniac, lunatic, demented, and psycho are offensive and should never be applied to people with mental health problems. Psychotic, schizophrenic, neurotic, and other specific terms should be used only in proper context and should be checked carefully for medical and legal accuracy. Acceptable terms are *people with emotional disorders*, *psychiatric illness*, or *psychiatric disabilities*.

Mental retardation. Generally considered a form of developmental disability. Mental retardation consists of significantly below average intellectual functioning with deficits in adaptive behavior seen during the developmental period before age 18. Preferred: *people with mental retardation*.

Guidelines for Reporting and Writing about People with Disabilities

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Nondisabled. Appropriate term for people without disabilities. Normal, able-bodied, healthy, or whole are inappropriate.

Seizure. Describes an involuntary muscular contraction, a brief impairment or loss of consciousness, etc. resulting from a neurological condition such as epilepsy or from an acquired brain injury. Rather than epileptic, say *girl with epilepsy or boy with a seizure disorder*. The term convulsion should be used only for seizures involving contraction of the entire body.

Small/short stature. Do not refer to people under 4'10" as dwarfs or midgets. Use *person of small (or short) stature*. Dwarfism is an accepted medical term, but it should not be used as general terminology. Some groups prefer "little people." However, to some, that implies a less than full, adult status in society.

Spastic. Describes a muscle with sudden abnormal and involuntary spasms. Not appropriate for describing someone with cerebral palsy. Muscles are spastic, not people.

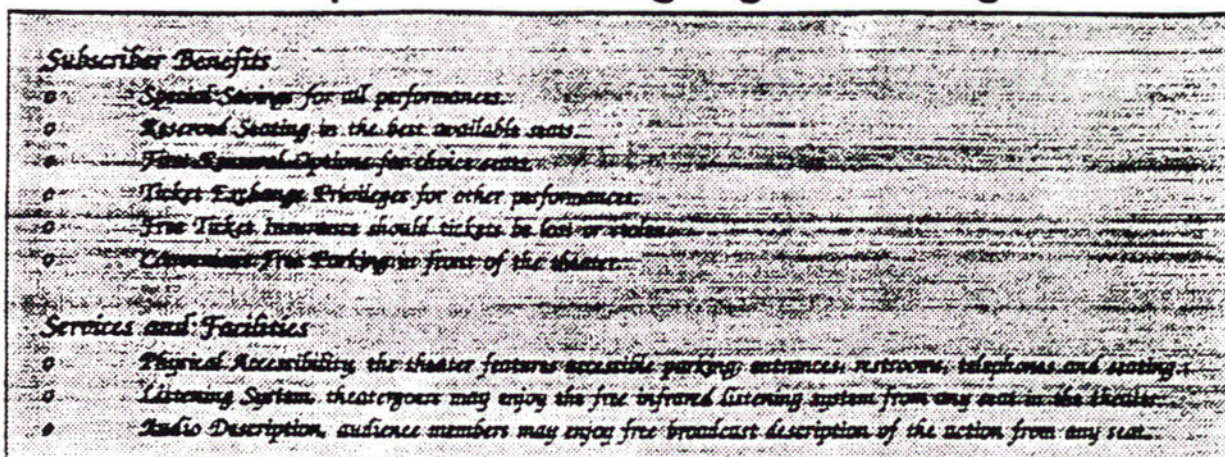
Special. Describes that which is different or uncommon about any person. Do not use to describe persons with disabilities (except when citing laws or regulations).

Speech disorder. A condition in which a person has limited or difficult speech patterns. Use *child who has a speech disorder*. For a person with no verbal speech capability, use *woman without speech*. Do not use mute or dumb.

Spinal cord injury. Describes a condition in which there has been permanent damage to the spinal cord. *Quadriplegia* denotes substantial or total loss of function in all four extremities (some prefer *tetraplegia* to indicate complete paralysis of all four extremities). *Paraplegia* refers to substantial or total loss of function in the lower part of the body only. Say *man with paraplegia or woman who is paralyzed*.

Stroke. Caused by interruption in flow of blood to brain. Hemiplegia (paralysis on one side) may result. *Stroke survivor* is preferred over stroke victim.

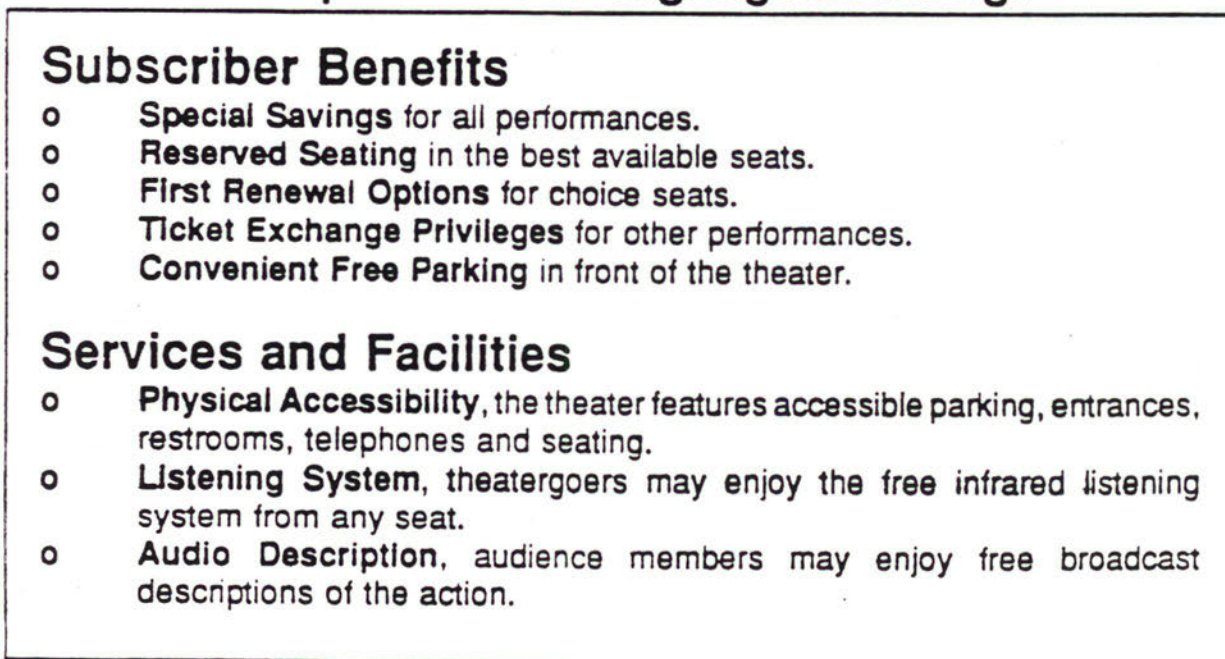
Example of Poor Signage/Labeling:



Can you read the above sign? Many will find it illegible. Attractive lettering is not always legible and even harder to read when poor lighting is a factor (ex: exhibit areas, lobbies and dim theaters). As you can see, it is important that we keep the following factors in mind when we create signage:

- o High Contrast-dark letters/light background
- o Font-normal or bold standard fonts are best (italic lettering may be hard to read)
- o Size-12pt.+ is standard for manuscript (small lettering can strain the eye)

Example of Good Signage/Labeling:



Welcome to the Disability Access Symbols Project produced by the Graphic Artists Guild Foundation. These 12 symbols, available on 3 1/2" double density floppy disks (PC or Mac) and as reproducible slicks (as they appear in this brochure), may be used to promote and publicize accessibility of places, programs and other activities for people with various disabilities.

Many organizations, both public and private, have been working to become more accessible to this country's 43 million citizens with disabilities. Organizations that receive government funding are required to provide accessible programs and services under Sections 503 and 504 of the *Rehabilitation Act of 1973*. A more recent law, the *1990 Americans with Disabilities Act (ADA)*, extends accessibility provisions to the private sector in order to help guarantee persons with disabilities employment and the right to enter the economic, social and cultural mainstreams. The ADA goes well beyond federally funded organizations to encompass private sector entities that serve the public, including cultural organizations that do not receive federal support, retail businesses, movie theaters and restaurants.

The symbols on this disk and brochure are intended to help you advertise your access services to customers, audiences, staff and other targeted publics. Advertisements, newsletters, conference and program brochures, membership forms, building signage, floor plans and maps are examples of material that might display these symbols. You are encouraged to place these symbols next to the relevant information in all publications and media.

Any language accompanying the symbols should focus on the accomodation or service, not on who uses it. For example, "Ramped Entrance" may accompany the wheelchair symbol. This is important because not only do individuals in wheelchairs use ramps, but so do people with baby carriages, luggage, etc. Language that fosters dignity is important too. For example, "Reserved Parking" or "Accessible Parking" may be used with the wheelchair symbol to indicate parking spaces designated for people with disabilities.

These symbols have been saved as "TIFF" files. Your computer software program manual should outline the procedures for importing these symbols. Blind individuals who use a computer with a standard text reading system may also access the material on the PC format disk. You may copy the disk and slicks for distribution to your constituents, but they may not be sold.

Disability Access Symbols Project

Promoting Accessible Places and Programs

Produced by

the Graphic Artists Guild Foundation

with support and technical assistance from

the Office for Special Constituencies,

National Endowment for the Arts.

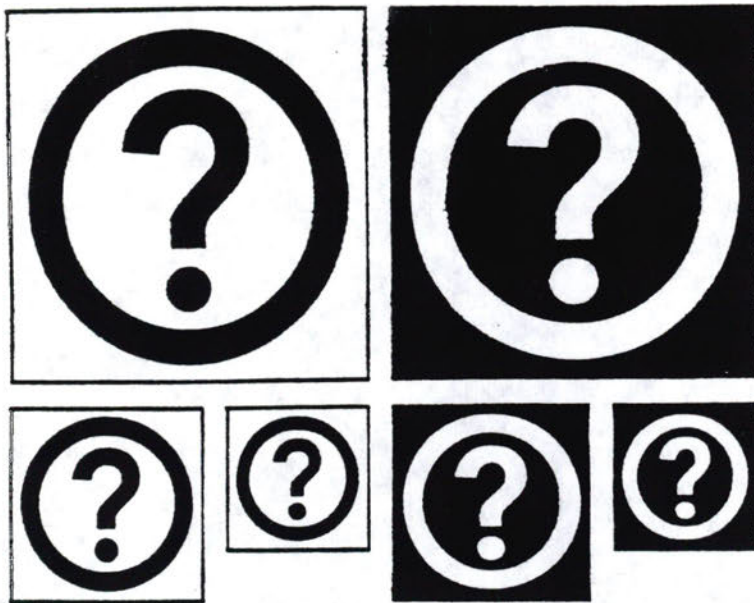
To obtain additional copies of this brochure with either PC or Mac disks, please send \$12.95 plus \$3.50 shipping and handling (NY deliveries add 8.25% sales tax) to:

Graphic Artists Guild Foundation
11 West 20th Street, 8th Floor, New York, NY 10011-3704
(212)463-7730 FAX (212)463-8779

Consultant: Jacqueline Ann Clipsham
Graphic Design: Doubling Communications, New York, NY

100 lb text Quinnesence Remarque provided by
Potlatch Paper Corp., Greenwich, CT and Ailing & Cory, Long Island City, NY
Diskettes provided by Infosate Systems, Inc. and International Typeface Corporation
Graphic Design assistance by the Society of Environmental Graphic Designers





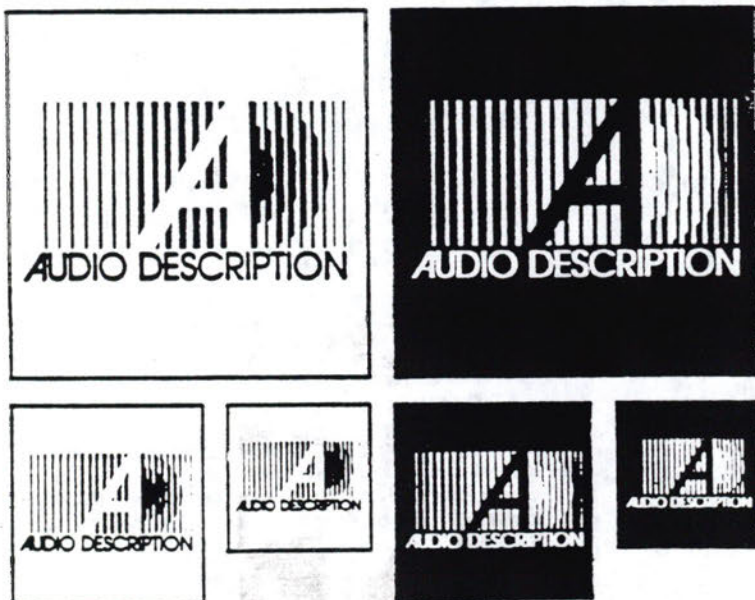
1. Information Symbol:

The most valuable commodity of today's society is information; to a person with a disability, it is essential. For example, the symbol can be used on signage or on a floor plan to indicate the location of the information or security desk where there is more specific information or materials concerning access accommodation and services such as "LARGE PRINT" materials, audio cassette recordings of materials, or sign interpreted tours.



2. International Symbol of Accessibility:

The wheelchair symbol should only be used to indicate access for individuals with limited mobility including wheelchair users. For example, the symbol is used to indicate an accessible entrance, bathroom or that a phone is lowered for wheelchair users. Remember that a ramped entrance is not completely accessible if there are no curb cuts, and an elevator is not accessible if it can only be reached via steps.



3. Live Audio Description:

A service for people who are blind or have low vision that makes the performing and visual arts more accessible. A trained Audio Describer offers live commentary or narration (via headphones and a small transmitter) consisting of concise, objective description of visual elements: for example, a theater performance or a visual arts exhibition at a museum.



4. Audio Description for TV, Video and Film:

This service makes television, video, and film more accessible for persons who are blind or have low vision. Description of visual elements is provided by a trained Audio Describer through the Secondary Audio Program (SAP) of televisions and monitors equipped with stereo sound. An adapter for non-stereo TVs is available through the *American Foundation for the Blind*, (800)829-0500.



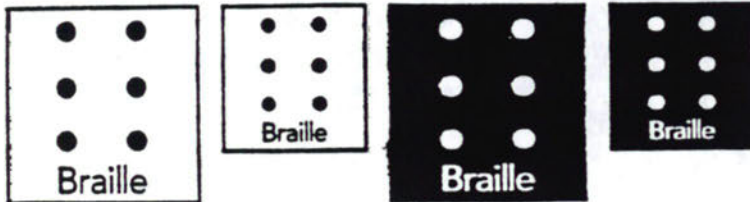
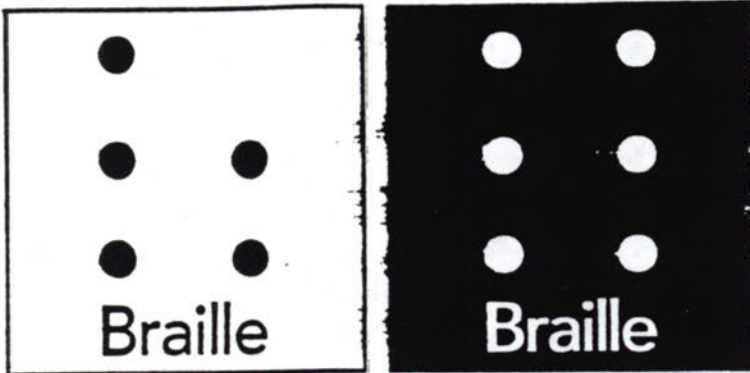
5. Accessible Print (18 pt. or Larger):

The symbol for large print is "Large Print" printed in 18 point or larger text. In addition indicating that large print versions of books, pamphlets, museum guides and theater programs are available, you may use the symbol on conference or membership forms to indicate that print materials may be provided in large print. Sans serif or modified serif print with good contrast is highly recommended, and special attention should be paid to letter and word spacing.



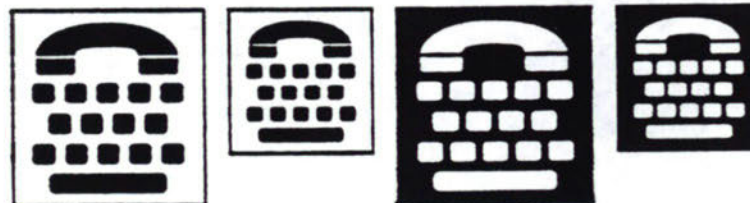
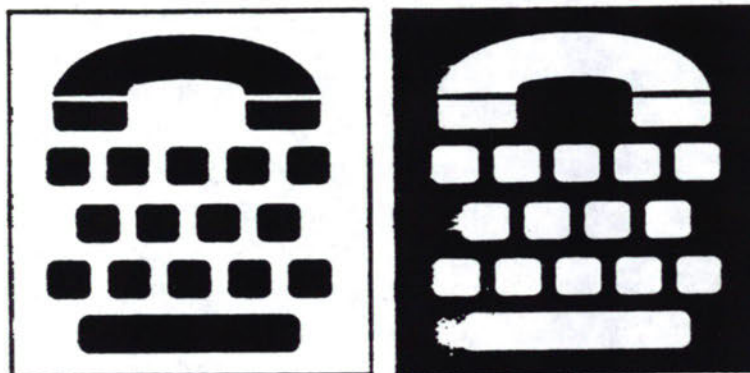
6. Access (Other Than Print or Braille for Individuals Who Are Blind or Have Low Vision):

This symbol may be used to indicate access for people who are blind or have low vision including: a guided tour, a path to a nature trail or a scent garden in a park; and a tactile tour of a museum exhibition that may be touched.



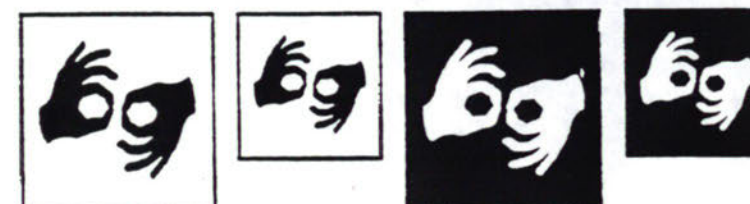
7. Braille Symbol:

This symbol indicates that printed matter is available in Braille, including exhibitir be ing, publications and signage.



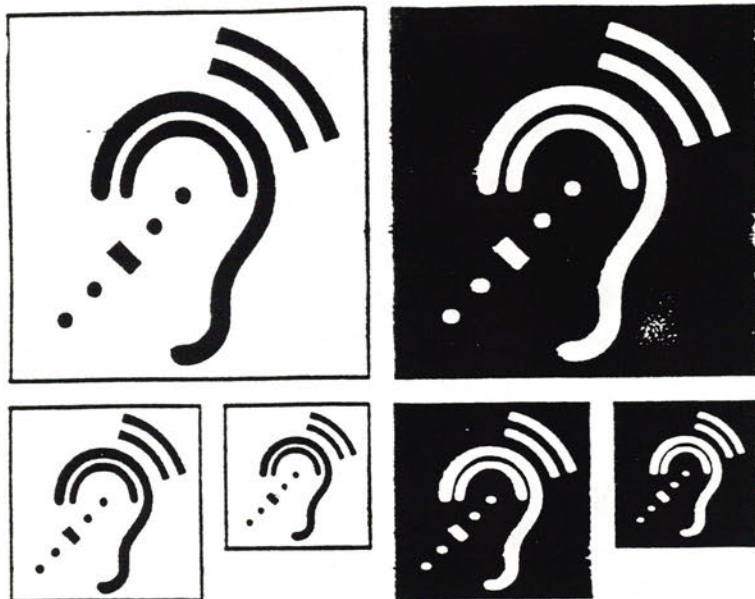
8. Telephone Typewriter (TTY):

Also known as text telephone (TT), or telecommunications device for the deaf (TDD), TTY indicates a device used with the telephone (and the phone number) for communication between deaf, hard of hearing, speech impaired and/or hearing per.



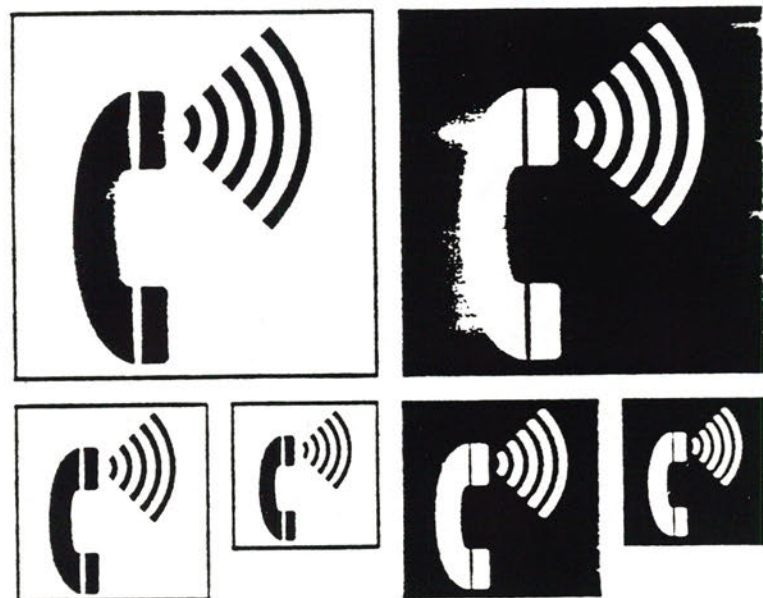
9. Sign Language Interpreted:

The symbol indicates that Sign Language Interpretation is provided for a lecture, tour, performance, conference or other program.



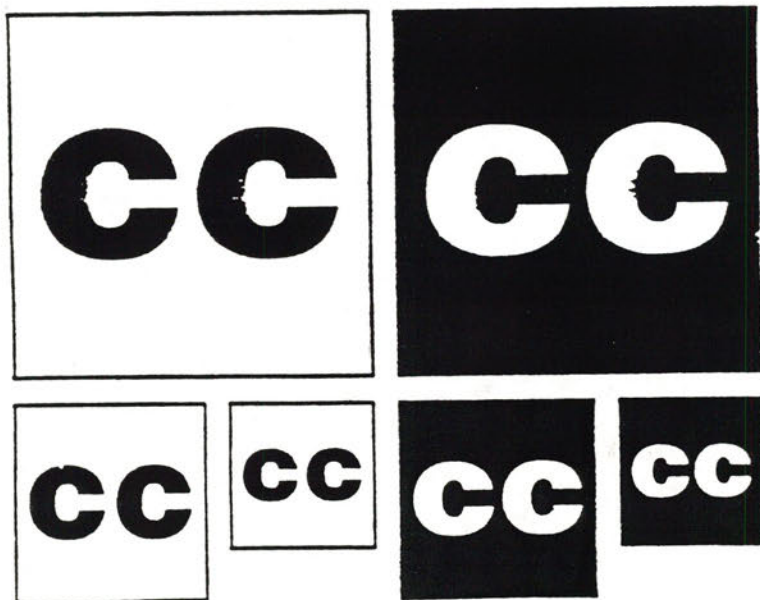
10. Assistive Listening Systems:

These systems transmit amplified sound via hearing aids or head sets. They include infrared, loop and FM systems. Portable systems may be available from the same audiovisual equipment suppliers that service conferences and meetings.



11. Volume Control Telephone:

This symbol indicates the location of telephones that have handsets with amplified sound and/or adjustable volume controls.



12. Closed Captioning (CC):

This symbol indicates that a television program videotape is closed captioned for deaf or hard of hearing persons (and others). TV sets that have a built-in or a separate decoder are equipped to display dialogue for programs that are captioned. The *Television Decoder Circuitry Act of 1990* requires new TV sets (with screens 13" or larger) to have built-in decoders as of July, 1993. Also videos that are part of exhibitions may be closed captioned using the symbol with instructions to press a button for captioning. An alternative would be open captioning, which translates dialogue and other sounds in print.

National Association for Visually Handicapped Standards and Criteria for Large Print Publications

The following criteria and standards must be approved by the National Association for Visually Handicapped (NAVH) prior to granting its "Seal of Approval" for high quality large print.

1. No edition may exceed an overall size of 8³/₄" x 11¹/₄". with a maximum sheet size of 8¹/₂" x 11".
2. The finished book shall not exceed 1¹/₄" in thickness, with a maximum weight of 3 pounds. (This does not apply to technical books--i.e., a dictionary, atlas, etc.)
3. An off-white or natural vellum stock must be used to prevent glare.
4. Gutter margins should not be less than ⁷/₈", with the outside margin smaller, but not less than ¹/₂".
5. Type size should not be smaller than 16 point--preferably an 18 point type should be maintained.
6. When resetting, it is recommended that a sans serif or modified serif be used. Helvetica, Century or Garamond are examples of particularly good type faces.
7. Letter spacing, word spacing and leading must be adequate in order to avoid crowded copy, as white spacing is of utmost importance to many people with vision loss.
8. Density is extremely important, and copy that appears grey will not be acceptable.
9. The binding shall allow for as much flexibility as possible, with the hope that a loose spine will be employed in order to allow the book to lie as flat as possible. It is recommended that all books be side sewn for durability.
10. A vertical line must be used to separate columns.
11. If photographically enlarged from the original edition, broken letters must be avoided. Careful scrutiny of selections should be made either by the editorial department of the respective publisher, or NAVH will offer this service if small print editions are sent to us prior to the enlarging process.

With easy accessibility of computer type, excellent large print can be prepared. It is recommended that, for most type faces, a medium font be used with a laser print-out of at least 400 DPI.

12. Signatures or tear sheets of all books which are to carry the NAVH SEAL OF APPROVAL must be sent to NAVH prior to final printing for examination.
13. The NAVH SEAL shall appear on jackets (when used), as well as on either the front cover or on the copyright or credit page of each book. At least two copies of each completed book shall be given to NAVH.

NOTE

The availability of approved titles will be included in our kits of information distributed worldwide.

National Association for
Visually Handicapped
22 West 21st Street
New York, NY 10010
212/889-3141 (V)
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Rev. 1993

ADDITIONAL
INFORMATION
FOR
PROGRAMS,
SERVICES,
AND
ACTIVITIES

CREATING PEER ACCEPTANCE

Creating Peer Acceptance is a project which must be undertaken purposefully if integration is to be successful and without harmful incidence. There is some disagreement as to whether or not participants should be told in advance that a person with a disability will be joining an activity. Some factors to consider that might influence that decision are: the number of people with disabilities to be integrated; the degree of functional ability; the "obviousness" of the person with a disability's condition; and the age of the person with the disability.

If the decision is made to ready the program participants to accept the person with the disability, here are some ways to begin a sensitization process:

- simulation of the various disabilities and effects on the degree of recreational aptitude
- problem-solving discussions on what one might do if one became either temporally or permanently disabled
- teaching specific skills to help familiarize them with the assistance needed
- demonstrate the use of aids and devices and modified recreation equipment
- invite a guest speaker
- read materials or use audio-visual aids made specifically for this purpose
- role play
- field trips to a recreational event (i.e. Very Special Arts Event)
- conduct a pre-instruction clinic where peer instructors work with an individual with a disability
- arrange to have one or two of the program participants meet the individual beforehand - create a mood of acceptance

Most importantly, don't forget to prepare the individual who is to be mainstreamed. Methods to consider:

- if a child, arrange for the parent to talk to the recreation leader so that they may discuss what kind of modifications may be made to accommodate the child
- arrange for the individual to meet the recreation leader ahead of time; give expectations of a typical day or event so that the fear of the unknown may be diminished

- have the recreation leader work on skills used in the program; offer practice times, to include take-home; develop or capitalize on areas of expertise in which the individual with a disability may demonstrate skill
- recruit a peer "buddy" to help in the initiation of the program

Some resistance may be experienced from the parents of the "able-bodied" children. It is suggested that some objections may be prevented by indicating in your program announcements and brochures that, in accordance with the Americans with Disabilities Act (ADA), people of all abilities are welcome to participate in programs sponsored by the Parks and Recreation Department. If questions still arise, patience and education can go a long way. Here are some suggestions to assist you:

- tell the parent that as a public agency, it is your legal and moral responsibility to serve all the City of Asheville residents
- assure the parent that the presence of the individual with a disability in the program in no way interferes with the conduct or the quality of the program
- advise the parent that the program participants have been "sensitized" on getting along with the varying disabilities, but if any difficulties arise, these can be handled by the staff
- invite the parent to visit the program so that he/she can see for themselves the positive results

SOURCE: Leisure is for Everyone - BEH Project
Dr. Jacquelyn Stanley, Project Director
Office of Community Recreation for Handicapped Persons
363 West State Street, Trenton, N.J.

AWARENESS ACTIVITIES:

Empathy Creating Experiences for Non-Disabled Individuals

Things to View--

1. A DIFFERENT APPROACH. A film using a humorous approach to promote seriousness of the abilities of the handicapped. An example is the use of the TV commercial "comparison tests" in which a housewife attempts to pick out an item made by a handicapped person. Excellent general purpose film that features well-known Hollywood and television stars.
21 min., color, 16mm, developed by the South Bay Mayor's Committee for the Employment of the Handicapped. Available from Marsha Savant, Los Angeles Harbor College, 111 Figueroa Place, Wilmington, CA 90744.
2. FEELING FREE. Series of six films about handicapped children; developed originally to establish a climate open to mainstreaming. Its purpose is to show non-disabled children that the disabled are more like them than different. Available from Scholastic's FEELING FREE, 904 Sylvan Avenue, Englewood Cliffs, New Jersey, 07632.
3. IT'S ABILITY THAT COUNTS. A discussion of various sports taken up by the handicapped such as basketball, swimming, obstacle course, climbing ropes, volleyball, and vaulting. Explains how adaptations are made to make sports participation by the handicapped a reality. 32 mins., color. Available from International Rehabilitation Film Review Library, 20 West 40th Street, New York, New York 10018.
4. MINNESOTA OUTWARD BOUND AND THE PHYSICALLY DISABLED. A six-minute, 16mm, color film production depicting participation of physically disabled individuals in outdoor adventure activities of the Outward Bound Program in Ely, Minnesota. Rental \$15.00. Available from Minnesota Outward Bound School, 308 Walker Avenue, South, Wayzata, Minnesota 55391.
5. MAINSTREAMING THE HANDICAPPED IN THE COMMUNITY. An excellent awareness audio-visual presentation on the subject of mainstreaming handicapped persons in community services and programs. Color, 20 mins. Available from Kathy Collard, Department of Recreation and Leisure Studies, San Jose State University, San Jose, CA. 95192

Things to Do--

1. TRY ON A DISABILITY. Have available, the following:
four large puzzles--six pieces each (can be made out of poster board and magazine pages or covers).
crutches large cooking mits or boxing gloves adhesive tape
wheelchairs blindfolds (and semi-transparent eye covers) earplugs
PROCEDURE: Provide each student with a piece of the puzzle that is identified by the disability and have them apply the disability. Have students then find the other parts to the puzzle. Once completed, have participants and on-lookers discuss their feelings and observations. Have students exchange disabilities and have them participate in other recreation activities, such as musical chairs, relay, etc.*

2. DEMONSTRATIONS OF COMPETENCE. Have individuals or group attend one of the following:
 - a. Special Olympics event
 - b. Wheelchair Sports event
 - c. Field day or carnival at local state hospital
 - d. Open house at a specialized camp
 - e. Special Arts festival/contest/display
 - f. Open house at a sheltered workshop

3. CONSUMER PANEL. Invite a group of individuals with disabilities to give a panel presentation focusing upon the impact of their disabilities in such areas as:
 - a. Employment/education
 - b. Housing/transportation
 - c. Recreation/socialization

4. COOPERATIVE TASKS. Involve a group of disabled and non-disabled individuals in initiative problems such as the following:
 - a. Reach For The Sky - Given a piece of chalk or tape, the group attempts to make a mark as high as possible on a wall or smooth tree trunk. The tapes can be numbered if the groups are to be competitive.
 - b. Line Up By Height - Group members are given the names of animals to portray. While blindfolded their challenge is to line up by the heights of their animals against a wall.
 - c. Push Of War - Line the group up as though you were ready to play tug-of-war with a 75' - 150' length of rope. Give the instruction that "during the next 30 seconds we'll have a push of war, pushing and throwing permitted, tugging and pulling illegal, ready to go. (Contest ends when all of rope is pushed to one side of center line or time ends. Generally ends in a tie.)
 - d. Blind Polygon - The object is for a group of any size, wearing blindfolds to form a perfect square, triangle, pentagon, etc., while blindfolded, using a 75' - 150' piece of goldline. All participants must have at least one hand on the rope at all times. When the group believes the task is accomplished they are to stand in position and remove their blindfolds.
 - e. A Touch of Pop - The object is to see how many group members can touch a pop can without touching one another.

Things to Read--

1. Books -
 - a. SPECIAL PEOPLE by Shirley Cohen--a humorous, highly readable status report on individuals with disabilities. Published by Prentice-Hall, Englewood Cliffs, N. J. 07632, 1977.
 - b. DISABLED AMERICANS: A HISTORY by Dr. John Leniham--a special issue of "Performance", the monthly magazine of the President's Committee on Employment of the Handicapped, Washington, D. C., 20210, outlining the contributions handicapped people made to the founding and building of America.

2. Articles/Pamphlets/Flyers--

- a. THE IDEAL HUMAN SERVICE FOR A SOCIETALLY DEVALUED GROUP by Wolf Wolfensberger. Rehabilitation Literature, Volume 39, No. 1 (January, 1978), pp. 15-17. Presents a variety of dehumanizing program practices utilized by human service providers. Available from the National Easter Seal Society, 2023 West Odgen Avenue, Chicago IL 60612.
- b. RECREATION: THE FINAL DIMENSIONS IN EQUAL OPPORTUNITY FOR THE HANDICAPPED by John Nesbitt. Amicus, Volume 3, No. 3 (May/June 1978), pp. 32-37. An interview with John Nesbitt in which he presents a rationale for equal opportunity in recreation for the handicapped and details current issues in the area. Amicus is a publication of the National Center For Law and The Handicapped, 1235 N. Eddy St., S. Bend, IN, 46616.
- c. THINK OF ME FIRST AS A PERSON By Rita Dranginis. Leisurability, Volume 2, No. 1 (January, 1975), p. 21. A poem describing the feelings and needs of a mentally retarded child. Available from U. S. Catholic, published by Claretian Publications, 227 W. Madison St., Chicago, IL 60606.
- d. IMAGES, WORDS, AND IDENTITY by Eric Gentile and Judy Taylor. Perspectives on the terms (e.g., disabled, handicapped) associated with individuals with disabilities and their connotations. Available from Michigan State University/Handicapped Programs, W. 402 Library Building, M.S.U., East Lansing, Michigan 48824.

Training Resources--

1. Committee on Youth Development. PEOPLE JUST LIKE YOU, ABOUT HANDICAPS AND HANDICAPPED PEOPLE (AN ACTIVITY GUIDE). The President's Committee on Employment of the Handicapped, Washington, D. C. 20210. A sequence of six activities for students at all grade levels are detailed. An annotated bibliography with supplemental resources (films, books, agencies) is also included.
2. Dean's Grant/BEH Project. PROJECT TRAINING MODULE SERIES. Includes the following training modules:
 - a. Mainstreaming Handicapped Youngsters In Specific Community Youth Organization Programs.
 - b. Including Youngsters With Special Needs Into Regular Youth Programs.
 - c. Barriers To Community Mainstreaming.
 - d. Introduction of Handicapped Youth Into Community Recreation Programs.
 - e. Basic Issues for Discussion of the Topics of Community Mainstreaming.
 - f. Community Resource Plan Development Strategies.604 Clark Hall, College of Public and Community Services, University of Missouri-Columbia, Columbia, MO., 65201. Details training activities for community agency personnel for a variety of integrative considerations.

3. Project May. MAINSTREAMING: PERSONAL VALUES (Book No. 1), A GUIDE TO DEVELOPING A PROGRAM (Book No. 2), YOUR PERSONAL GUIDE (Book No. 3). P. O. Box 1781, Longview, Washington, 98632. A collaborative effort of youth serving agencies to plan, develop, implement, promote, and evaluate the mainstreaming of handicapped youth into regular programs. Includes a variety of case studies, values clarification activities, and worksheets related to developing attitudes and planning skills conducive to successful mainstreaming.

Source: PROJECT PAR (Planning Accessible Recreation)
227 Hewitt Hall
Recreation and Parks Program
University of New Hampshire
Durham, N. H. 03824

ACTIVITY ADAPTATION

INTRODUCTION

The outline which follows details a variety of considerations to creating access to recreation for participants of varying skill levels. Overriding considerations in all adaptive efforts are that as little adaptation as possible be employed and secondly that the "lowest common denominator" approach to adaptations be avoided as the following example demonstrates:

Today we're going to play baseball. Regular rules except there will be no curve-balls allowed because Arnie, Beth, and Charlie can't hit them. Also no stealing, our catcher, Dave, has a sore arm. Hits to right field have to be on the ground because Eunice doesn't like fly-balls. Oh, and Fred has asked that he only be tagged on the legs; he's got a bad sunburn. Gloria has to bat crosshanded and run the bases blind-folded because of those four home-runs she slugged last game. Because Harry argues so much we'll be flipping a coin on all close calls. Oh, and we won't be using third base because Inga and Jerry don't like being stranded there. Remember the rules and have fun!

ADAPTATION OUTLINE

GENERAL SUGGESTIONS

- A. Base activity adaptations on the individual and his functional strengths/weaknesses relative to an activity rather than on diagnostic categories (thoroughly analyze activity and avoid stereotypes such as "mentally retarded people love to dance").
- B. Include disabled participants in the process of developing activity adaptations (simply ask them "how best you can do this").
- C. Avoid the mind-sets of well-known games (e.g., baseball, basketball, etc.) by using new games or fully describing adaptations.
- D. Most children with permanent disabilities will have already developed necessary modifications to permit their participation in certain activities. Allow these children to proceed at their own rate of involvement. If they experience difficulty or cannot make the necessary adjustments, step in and assist.
- E. Adaptations must be made to suit the child's abilities rather than his/her disabilities.

- F. Modification of game rules should not be discouraged and should be regulated to meet the needs of the group.
- G. Try not to change a game to such a degree that the children lose sight of what they started to play.
- H. When working with a new student, begin slowly and gradually introduce him/her to new activities. Keep in mind the child may have some fear of new experiences, may become embarrassed or display a lack of initiative.

I. General Ways to Adapt Games and Sports

1. Reduce the size of the playing area:
 - a. Change the boundary lines.
 - b. Increase the number of players.
 - c. Decrease the height of the net or goal.
 - d. Use equipment that will reduce the range of play.
 - e. Net-type games may be played through a hoop.
2. Use lighter equipment:
 - a. Plastic bats, "wiffle-type" balls.
 - b. Large plastic beachballs: bladder balls.
 - c. Yarnballs, styrofoam balls.
3. Slow down moving objects:
 - a. Change the throwing style to underhand.
 - b. Throw ball with one bounce.
 - c. Roll the ball.
 - d. Stationary ball: place it on home plate or place it on a batting T.
 - e. Increase the size of the ball.
 - f. Decrease the weight of the ball.
4. Modify the rules:
 - a. Sit down or lie down rather than stand.
 - b. Walk rather than run.
 - c. Kick rather than strike.
 - d. Throw or strike rather than kick.
 - e. Permit additional trials: strikes, throws, and jumps.
 - f. Allow for substitution.
 - g. Reduce the time periods of the game.
 - h. Reduce the number of points required to win a contest.

5. Provide additional rest periods:
 - a. Discuss rule infractions.
 - b. Discuss strategy and team play.
 - c. Rotate players in and out of the game or into active and inactive positions.
6. Don't allow players to choose teams (use new games, colored paper draw, etc.)

II. Programming Alternatives

- A. Regrouping children, while keeping normal traditional rules:
 1. PARALLEL PLAY such as baseball and beanbag game during athletic period. Two games are played simultaneously.
 2. CREATING ALTERNATIVE OR PARA ROLES within a game. Such as having one child be umpire while others play ball. One game is played and performers assume different positions within it.
- B. Changing rules while keeping original grouping of children:
 1. SLIGHT MODIFICATION such as making exceptions for one or two players and having pitcher move closer to batter.
 2. MAJOR MODIFICATION whereby rules for all players are changed such as using large volleyball to play baseball.

III. Grouping Considerations

- A. By functional ability (e.g., beginning swim, introduction to macrame, advanced first-aid)--may cause the disabled child to consistently be in age-inappropriate groups.
- B. Buddy system (pairing handicapped clients whose strengths compliment one another or pairing handicapped and non-handicapped child).
- C. Interest Groupings--activities may be adapted to allow the individual to pursue his interests or activities that are similar in appeal (e. g. substitute sailing for canoeing) but more in line with the individuals abilities may be suggested.

IV. Stimulating Positive Interaction (Project ACCESS, San Jose State University)

- A. Equal role of participants. Maintaining the traditional helper/helpee relationship only serves to reinforce negative stereotypes. Select experiences in which all individuals can participate according to their abilities. The New Games approach or Movement Exploration techniques are often helpful in this respect.
- B. Use cooperative rather than competitive experiences that maximize successful involvement. (Hutchison and Lord).

- C. Begin with simple exercises, "ice breakers" that encourage people to meet each other, and discuss interests and point out abilities and similarities among participants.
- D. Use socially oriented equipment and materials rather than isolated materials. For example, parachute play and group collage as opposed to reading books or riding bikes.
- E. Select enjoyable activities where participants can interact in a non-threatening manner and have fun.
- F. Encourage the buddy system or partners so that the participant with a disability has an opportunity to role model effective behavior.
- G. Begin with smaller groups of 10-20 participants in which two or three participants with disabilities are included. This ratio is more realistic for the disabled participant.
- H. Be a positive role model for all participants. Give positive feedback and constructive criticism. Treat each individual with dignity and respect and do not give special attention to any one individual.

V. Some Aspects of Rejection

- A. Rejection may be an expression of fear on the part of able-bodied children that the presence of a disabled child in the group may result in less enjoyment for them during the recreation period.
- B. Rejection is less likely to occur if the participant is placed in a group that is not tightly knit and unreceptive to the inclusion of an outsider.
- C. Happy participants whose individual needs are being met are less likely to reject a fellow participant.
- D. Rejection of an inconvenienced child is basically the same phenomenon as rejection of any child.
- E. A discussion of differences in people and the fact that we all have strengths and weaknesses might prove helpful in dealing with feelings of rejection.

VI. Rejection Should Diminish If

- A. The rejection is not rewarded by fellow participants or staff.
- B. Children become familiar with the condition and care required.
- C. Participants are able to discuss their own concerns, anxieties and feelings with the teacher, and those feelings are not rejected or minimized.
- D. Participants realize that the presence of an inconvenienced child in their group will not deter them from enjoying a full program.
- E. Problem behaviors (e.g., undesirable or anti-social actions) are dealt with efficiently and consistently.

- F. The known interests and skills of the inconvenienced child are given the opportunity to be demonstrated.
- G. The leader views the child as a full-time member of the recreation group to be rarely excluded from activities.

VII. Adapting Individual and Dual Sports

- A. Archery: Use lighter bow; arrows with rubber tips. Student may sit, draw targets.
- B. Bait-fly casting: Place target boards on gym floor or field at various distances. Student may sit.
- C. Badminton: Four players on each side, each playing small zone. "Hoop-bird" played with bird or yarnball.
- D. Bowling: Use plastic "gym-bowl" equipment or plastic detergent bottles. Student may bowl from a chair or sit on the floor. Roll ball through cardboard tube or box.
- E. Croquet: Use plastic mallets and wiffleballs, vary the distance to the wickets.
- F. Gymnastics: Tumbling, parallel bars, high bar, rings, side horse.
- G. Golf: Hit plastic practice ball into old tennis or volleyball nets which are faced with burlap. Putt on an old rug into a can placed on its side. Make miniature golf course from odds and ends.
- H. Handball: One wall, use partially deflated volleyball or smaller playground ball to slow the action of the game.
- I. Horseshoes: Rubber shoes or quoits can be used in and out-of-doors. Throw shoes into a box.
- J. Shuffleboard: Shorten distance between scoring zones. Student may sit.
- K. Swimming: Obtain American Red Cross Swimming for the Handicapped (American Red Cross, Swimming for the Handicapped, Washington, D. C. American Red Cross, 1977).
- L. Table Tennis: Use larger paddles, make small table-size hoop and play as "hoopbird". Place plywood sides on the table so that the ball will not bounce off the table so often; off the sides, ball remains in play.
- M. Tetherball: Sit or stand, punch or kick. Make small table-size game with broomstick and small rubber ball in a silk stocking.
- N. Quiet Games: Nok-hockey, table shuffleboard, pool, darts, beanbag toss games, box soccer.

VIII. Adapting Team Sports

- A. Baseball-Softball-Type Games: Use light plastic bats and whiffle-balls, batting tee. Use base runners, two sets of bases (one of shorter distances), throw the ball into the field rather than bat it. Give children positions that require little movement.
- B. Kickball: Punch or throw the ball rather than kick it. Place ball on home plate rather than roll it.
- C. Basketball-Type Games: Limit movement in the game by playing 21, Around the World, Six Court, Half-Court, Scooter Basketball, Foul Shooting, Barrelball. Have student do the foul shooting for both teams.
- D. Soccer-Hockey-Type Games: Have student play goalie. Reduce size of goal. Scooter Games: Punching a playground ball. Hockey played with old brooms and volleyball. Barrelball: Shooting for hole. Volleyball-Type Games: Deck Tennis, Newcomb, use larger soft bladder ball. Have both teams sit on the floor; put net at 4-5 feet.

Source: Adapted from BEH Project

Dr. Jacquelyn Stanley, Project Director
Roberta Bach, Project Coordinator
Office on Community Recreation for Handicapped
Persons
363 West State Street
Trenton, New Jersey 08625
And
BEH Project PAR (Planning Accessible
Recreation)
227 Hewitt Hall
Recreation and Parks Program
University of New Hampshire
Durham, New Hampshire 03824

BASKETBALL ACTIVITIES

By Patricia Leaton

GENERAL ADAPTATIONS

1. Lower baskets.
2. Use balls that are lighter in weight with persons with less strength.
3. Make frequent substitution.
4. Limit the size of the play area in early stages of play.

SPECIFIC ADAPTATIONS

Visually Handicapped

1. Use brightly colored balls with partially sighted persons.
2. Paint the shooting target on the backboard with bright colors.
3. Use sighted helpers to guide or assist the handicapped participant.
4. The leader should use kinesthetic teaching.
5. Mats can be placed to differentiate the playing court from the out-of-bounds.
6. Have rules typed in braille.
7. For direction orientation, metronomes or audible goal locator can be placed on the backboard.
8. Use bounce passes as a way of passing the ball to the blind participant. The sound is a signal of which direction the ball is coming from.

Auditory Handicapped

1. Use visual aids.
2. Lip reading may have been a part of the person's education. The leader should make him/herself highly visible.
3. Use flashing lights or waving flags as an indication of stoppage of play.

Cardiopathic

1. Have short activity periods that are followed by longer rest periods.
2. To reduce strain, use a ball that is lighter in weight.
3. Competitive games may be contraindicated.

Asthmatic

1. The leader should insure that the gymnasium is free of dust.
2. Progression from lead-up activities to game play will help build the cardio-respiratory endurance needed for the court play.

Mentally Retarded

1. The instructor should use demonstration more than verbal explanations.
2. Make the practice periods short and have frequent changes in activities.
3. Repeat successful experiences so the participants gain feelings of accomplishment.

Physically Disabled

One Arm Involvement

Bounce passes should be used to provide more time to catch the ball. A simple hand-off is also good to use.

One Leg Involvement

It is advisable to teach shooting activities first so as to develop confidence, through successful experiences.

Two Leg Involvement

1. Net ball returns are advised for use during shooting practice. This provides an easy and independent way to retrieve the ball.
2. If playing wheelchair basketball:
 - a. On a center jump, it is forbidden to raise any part of the body from a wheelchair.
 - b. If a wheelchair player has more than two successive pushes on the wheels without dribbling the ball on the floor, it is considered traveling.

SAFETY CONSIDERATIONS

1. Instruct other participants to look for warning signs of fatigue.
2. If using any special equipment with the handicapped participants (guide wires, mats, special lights) insure that it is visible to all participants so accidents are prevented.
3. With the cardiopathic participant, teach the person to monitor his/her own heart rate to reduce the chance of overexerting the heart. The leader should also be alert to signs of fatigue.
4. With the asthmatic person, frequently check for allergic reactions.
5. With the orthopedic person with a prosthetic device, care should be taken in its removal and replacement. If it is worn while person is playing the device should be no harder than a normal limb.
6. For those who may be more apt to fall, instruction in correct techniques for falling should be provided.
7. Padded walls for a game situation in which wheelchairs are used will reduce injury and increase protection for all.

CRAB SOCCER

by Michael Mitchell

GENERAL ADAPTATIONS

1. All the children in this game would be on scooters.
2. Use lead-up games to orientate the participants to the scooters.
3. Reduce the size of the play area and adjust methods for scoring to the ability of the groups playing.
4. A cage ball would be utilized in this game; it is much bigger than a soccer ball, it is easier to hit and much more fun to play with.
5. The players can kick, punch, strike, or throw the ball.
6. As appropriate, assign a buddy to each child with handicapping conditions.

SPECIFIC ADAPTATIONS

Visually Impaired

A goal locator should be placed at each end line and an auditory device may be connected to the ball.

Hearing Impaired

Hand signals should be used with voice commands to designate the start and stop of the activity. While giving instructions, the impaired should be placed directly in front of the instructor.

Mentally Retarded

Generally, no adaptations are necessary.

Physically Disabled

One Arm Involvement

No adaptations are necessary.

Two Arm Involvement

No special modifications would be needed. The impaired child has use of the legs to propel the scooter and kick the ball.

One Leg Involvement

This would cause no restriction in participation since pupils have the use of one leg and both arms.

Two Leg Involvement

The impaired, in this case, have the use of both arms to effectively participate.

GENERAL SAFETY CONSIDERATIONS

1. Only socks should be worn on the feet.
2. Advise children to be careful not to kick each other.
3. Advise children to keep their fingers away from the bottom of the scooter.
4. The activity leader should know basic first-aid procedures.
5. Participation for the asthmatic child should occur in areas that are as free as possible from dust. Activity leader should know proper breathing techniques in case the child has difficulty in breathing. Severely asthmatic children should only participate with medical approval.
6. Different size scooters should be available and safety belts may be used to secure children with handicapping conditions to their scooters (if necessary).

RHYTHMS AND DANCE ACTIVITIES

by Bambi Crance

GENERAL ADAPTATIONS

1. Scheduled rest periods and pre-arranged time limits are needed for dances.
2. Colorful environment and equipment should be used as stimuli.
3. Keep directions and explanations simple so the children can easily follow them.
4. The tempo must be set according to the students abilities.
5. Arrows, markers, color-cued numbers and letters may be used on the floor for directions and positions in dances.
6. Rhythmic equipment such as drums, tambourines, triangles, cymbals, sticks, and bells may be used as sound cues.
7. Schedule rest periods as needed. Relaxation may be accomplished with music played at a slow tempo.

SPECIFIC ADAPTATIONS

Mental Retardation

1. Dance class should be short and content should be repeated often.
2. Concrete explanations and demonstrations should be used.
3. The use of mirrors, kinesthesia and specific learning cues should be used.
4. Simple movement patterns and creativity should be stressed.

Blind and Partially Sighted

1. The leader must provide precise verbal instructions.
2. The blind participant may be placed with a seeing partner to enhance learning.
3. When clapping or other group noises are required in a specific dance, one or two persons should do the clapping so the blind person isn't easily distracted.
4. The blind and partially sighted people may have to walk forward and backward instead of turning circles and doing crossovers in dances.
5. The blind participant must always have close contact with another participant or leader during group dances.
6. Manual guidance and movement of body parts can be provided by other participants or the leader.

7. Formations and other information on dances should be in braille.
8. The blind participants must walk through all floor patterns before performing the dance.

Deaf

1. The music should consist of low bass sounds to obtain more defined vibrations.
2. The leader should face the deaf person when communicating.
3. Try to establish signals for different movements; for example, pointing forward means sliding forward, pointing right means sliding right and pointing left means sliding left.
4. Hand-clapping, hand movements, and rhythmic instruments may help establish a sense of timing for the deaf person.

Asthmatic

1. Avoid physical fatigue by having dances played at a slower tempo.
2. To help avoid possible attacks due to contact with dust, do not have the person sit or lay on the floor for a prolonged period of time.

Cardiopathic

1. Slower tempo may be necessary in rhythms and dance.
2. A person with cardiac/respiratory problems needs scheduled rest periods during folk and square dances.
3. It may be necessary to avoid vigorous and sustained dances.
4. The activity area should have a stable temperature and adequate ventilation.
5. The person should not move quickly from high to low positions (standing to squatting).

Orthopedically Handicapped

One Arm or Two Arm Involvement

1. The person may pass by the other participants when hand movement is necessary.
2. The person with one arm may prefer to take an outside position in groups of two or more.
3. To modify the changing of hands, the participant should have scarves tied to his belt.
4. For children, bells may be attached to lower limbs for rhythmic activities for fun and the opportunity to play with pieces of rhythmic equipment.

One Leg or Two Leg Involvement

1. Walking should be substituted for skipping if the person has a prosthesis.
2. Locomotor movements should be a slower pace.
3. Persons in wheelchairs can be propelled by other participants.
4. In square dancing, a person in a wheelchair can circle when others are performing the grand right and left.
5. Scooters may be used for easier mobility.
6. The child with crutches can do the following in square dancing: tip the head instead of bowing at the waist, swing by touching crutches, walk around to the left for the allemande left, and place one crutch forward for the balance.

SAFETY CONSIDERATIONS

1. The activity leader should have basic knowledge of first-aid.
2. For the blind participant, all objects need to be cleared from the floor.
3. Assign one designated "buddy" to the blind or deaf participant.
4. Stationary positions may be needed for the cardiopathic participant.
5. Medical consultation may be necessary to develop an adequate dance and rhythms program.
6. Participants should not engage in rhythms and dance activities beyond their limitations.

SOCCER ACTIVITIES
by Michael Mitchell

GENERAL ADAPTATIONS

1. Permit the substitution or interchange of duties when deemed necessary.
2. Limit play areas if movement capabilities are restricted.
3. Shortened play periods should be utilized.
4. Analyze positions according to the abilities of the individual.

SPECIFIC ADAPTATIONS

Mentally Retarded

No special modifications would be needed in this case. At the on-set of play, the demonstration and explanation of rules and procedures should be as concrete as possible.

Blind and Partially Sighted

Numerous modifications can be made to allow the blind to participate in soccer.

1. An audible goal locator could be placed near the goal at which the student is trying to score.
2. A bright orange or yellow beeper ball could be utilized.
3. The ball should be slightly bigger than the regulation soccer ball and softer to minimize the danger of the blind person being struck with a hard object.
4. Brightly colored line markers should be utilized.
5. A different textured surface should also be utilized around the playing field.
6. Recommended positions would be defense or goalie.
7. If the person plays goalie, the ball should not be lifted off the ground to score.
8. Participants should only be allowed to shoot from a designated distance in front of the goal.
9. Slide tackling of the blind should be prohibited.
10. A buddy should be assigned to help out.

Physically Disabled

One or Two Arm Involvement

This would pose little or no difficulty in a soccer game.

One Leg Involvement

With the use of crutches, there would be no reason why a one leg amputee could not participate in soccer. A defensive position would be recommended.

Two Leg Involvement

In regular soccer, this type of person would be limited severely in participation. Two modifications could be made in this case.

1. In regular soccer, this person could execute throw in's for both teams on one side of the field.
2. All people could be in wheelchairs and a broom could be used to propel the ball. Also, the indoor game of crab soccer could be enjoyed by all.

Cardiopathic

Unless the condition calls for restriction, no special modifications would be needed in this case. It may be necessary for the individual to play goalie.

Asthmatic

The asthmatic person generally will have no serious difficulty in playing soccer. The environment should be as dust free as possible. Long extended periods of play would be contraindicated.

Auditory Impaired

Only minor modifications would be needed for a deaf person to participate. Hand signals as well as voice commands could be utilized to signal the start and stop of the activity. When the whistle blows, the "regular" people should stop immediately and raise their hands. This allows the deaf person to know that play is stopped. The activity leader should be knowledgeable of some type of sign language or finger spelling.

SAFETY CONSIDERATIONS

1. The activity leader should know basic first-aid procedures.
2. Participation for the asthmatic person should occur in areas that are free from dust. The activity leader should know proper breathing techniques in case the person has difficulty in breathing. Severely affected asthmatic people should only participate with medical approval.
3. At times, hearing aids need to be removed during activity.
4. Slide tackling may be contraindicated in particular instances.

SWIMMING ACTIVITIES

by Roy T. Speedling

GENERAL ADAPTATIONS

1. The temperature of the water in most pools should range from 78 degrees to 84 degrees Fahrenheit. For certain individuals, especially for severely involved cerebral palsied persons and persons with orthopedic problems, higher water temperature may be indicated. (The American National Red Cross, 1977, p. 111).
2. The air temperature of indoor pools should ideally be from four to six degrees higher than that of water. Besides controlling condensation on pool walls and ceilings, this will also provide a "comfort zone" for the students. (The American National Red Cross, 1977, p. 112).
3. When planning individual goals for the participant the instructor should be aware of the skill level of the individual rather than the specific handicap.
4. The instructor should use kinesthetic teaching along with demonstrations.
5. The instructor should simplify skills and establish and follow progressions.
6. The instructor should build lessons on previous successful experiences.
7. Games should be modified so all can participate.
8. Many persons with handicapping conditions (especially the deaf and blind) are adverse to getting their face wet. The fear of impairing the senses is a real one, and the instructor should deal with this patiently and with understanding.

SPECIFIC ADAPTATIONS

Mentally Retarded

1. Repeat instructions slowly and distinctly.
2. Offer a variety of activities to learn a particular skill.
3. Retarded persons learn best by doing. Make every effort to get each person participating as much as possible.
4. The use of an aide might be necessary for some one-on-one instruction.
5. If drills are to be used, they should be short in duration and diverse.
6. Drill on land before practicing in the water.
7. Most mentally retarded persons can and should be integrated into games of low organization.

Visually Impaired

1. The visually impaired person should be completely oriented to facilities.
2. If a demonstration is going to be used, an advanced participant or aide can do the actual demonstration while the leader kinesthetically moves the visually impaired participant through the skill.
3. The pool should be roped off separating the deep from the shallow end.
4. All swimming should be done in the same direction.
5. Audible goal locators or any audible device (bells) to signal the approach of the ends of the pool may be helpful.
6. Games which make use of a partner or which require contact are recommended.

Auditory Impaired

1. For those persons with faulty or easily infected middle and inner ears, a means must be found to protect the ears. Swimming may be contraindicated.
2. Demonstrations should be done slowly and accurately.
3. Flicking lights on and off is a good way to get the attention of the whole class.

Physically Disabled

1. Before the first session in the water, any problem related to getting into and out of the pool should be resolved. The participant should learn to get in and out of the pool without assistance, even though it may be a struggle.
2. For the first few lessons, the instructor might require an aide to help the participant with balance and getting adjusted to the water.
3. Recovery from either a prone or a supine position should be one of the first skills to be emphasized.
4. The use of fins or flippers for amputees might be advantageous.
5. Floatation devices might be used with individuals who lack buoyancy.
6. Modify the stroke being taught to the ability of the participant.

One Arm Involvement

A modified side stroke, with the legs providing most of the power and the one arm pulling is a recommended stroke for persons with one arm impairment.

Two arm Involvement

Any stroke done on the back using the power of the legs is a good choice.

One Leg Involvement

A modified back crawl, elementary back stroke, or side stroke are all good choices for basic stroke selection.

Two Leg Involvement

A modified breast stroke or crawl or any modified stroke using effective arm power is a good choice.

Cardiac

1. Gradual involvement in the activities of the pool should be employed.
2. Frequent rest periods may be recommended.
3. Breath holding for any long periods of time will probably be contraindicated.
4. Resting strokes such as the elementary back stroke, breast stroke or side stroke may be taught instead of work strokes.
5. Efficiency of effort in performing tasks should be given high priority when teaching aquatics to cardiac cases. (The American National Red Cross, 1977, p. 45).

Asthmatic

1. Care must be taken to check on person's condition at the time of the class, making sure it is not acute.
2. Activities requiring endurance should be led up to gradually.
3. Limit emotional upset and intense or vigorous activity.

SAFETY CONSIDERATIONS

1. Before a person enters a swimming class, the instructor should check the student's medical record of the present year to see what, if any, form of activity is contraindicated.
2. Be aware of all general first-aid principals and emergency techniques. It is the instructors responsibility to know about any handicapping condition a participant might have and its first-aid implications.
3. The instructor should have a current lifesaving certificate, and if possible, a valid water safety instructors card from the American Red Cross or other reputable institution.

TENNIS ACTIVITIES

by Teresa Infante

GENERAL ADAPTATIONS

1. The size of the court may be decreased so that those with limited movement and those who cannot participate in vigorous activity can play.
2. Regulation scoring may be dispensed with for those whose skills are not adequate to keep the ball in play for any length of time. A possible alternative to regulation scoring would be to count the number of times the ball is successfully returned in a given time period.
3. Those with insufficient arm strength to hold the racquet at arm's length may choke up on the handle.
4. The diameter of the handle should be adapted to each individual's specific needs.

SPECIFIC ADAPTATIONS

Mentally Retarded

1. Introduce the mentally retarded to tennis by using lead-up games. These will help them to become acquainted with skills involved in tennis.
2. Use concrete directions and frequent demonstrations.
3. Adjust periods of play to attention span and individual needs.
4. Simplify the rules.

Blind and Partially Sighted

1. Use an audible ball.
2. Use an audible goal locator at the net.
3. Use bright colors, especially yellow and orange, to mark all boundaries.
4. Use a ball with a larger circumference than a regular tennis ball.
5. Change the texture of the surface surrounding the playing area by using pieces of carpeting or foam rubber well secured to the floor.

Hearing Impaired

Use mutually agreed upon hand signals to replace verbal signals.

Physically Disabled

One Arm Involvement

The only modification is to hold and throw the ball with the racquet hand. If this is not possible, a bounce serve can be used.

Two Arm Involvement

1. These people can play tennis if a functional stump remains on one arm. The racquet may be taped or strapped to the stump.
2. To serve, start by balancing the ball on the face of the racquet. The ball is then tossed into the air by a quick upward movement of the racquet and stroked as it bounces.
3. Pick the ball up by starting it in a roll. As it is rolling, slip the head of the racquet under the ball and bounce it on the face until it can be brought under control and balanced.

One Leg Involvement

People with one leg may be able to play with the use of assistive devices such as crutches, as long as they can learn to balance well enough to use one hand on the racquet.

Two Leg Involvement

1. The reach of the player can be extended by lengthening the handle of the racquet.
2. To decrease the amount of movement for each person, play with three or four people on a side instead of one or two.

Cardiac

1. Do not let the game become too strenuous.
2. Give frequent rest periods.
3. Shorten periods of play.
4. Increase the number of people playing on each side.
5. Use a lighter weight racquet.
6. Decrease the size of the playing area.

SAFETY CONSIDERATIONS

1. Know each person's medical background and, if necessary, get a physician's permission for participation.
2. For those with balance problems and convulsive disorders, a helmet may be worn for extra protection.
3. Make sure the playing area is open and free of any unnecessary obstacles.

Source: The preceding activities have been adapted from:
The Preparation of Regular Physical Educators
for Mainstreaming, by Joseph P. Winnick and
Jan Jurwitz (eds.), State University College,
Brockport, New York 14420

EQUIPMENT MODIFICATION

INTRODUCTION

Many expensive and extensive special facilities and types of equipment are unnecessary. Participants want to take part in recreation programs using equipment that is as little different from that used by their peers and contemporaries as possible.

The disabled want to participate in most of the same activities as any other individual. If the equipment needed in these activities requires adaptation for a particular disability the adaptation can often easily and inexpensively be made to the existing equipment.

Various factors should be considered when choosing recreation equipment which allow easier adaptation when the need arises. These factors include:

- . Adaptability--meets physical and cognitive needs of users; fits into overall design of recreation area; fits into long-range plans.
- . Cost--is worth the expense.
- . Desirability--people use the equipment and continue to use it after novelty has worn off.
- . Destructability--will last as long as you want it to last.
- . Maintenance--does not require more time than you can spare to build or maintain.
- . Flexibility--can be modified to meet changing needs; serves more than one purpose.
- . Play Values--challenges people, holds their interest, and encourages development of various abilities.
- . Safety--is solidly constructed and of sound design.
- . Size--is scaled to the size of the users.

In planning and adaptation it is imperative that several groups be included in providing input and making decisions that so intimately affect them.

- . Consumers themselves--individuals with various handicapping conditions for whom programs, activities, and facilities are designed; in too many instances programs, activities, and facilities are planned and implemented in ways not consistent with what populations for which they are designed want; representative impaired, disabled, and handicapped persons--including mentally retarded--need to be consulted to provide this kind of input.

- . Persons who are going to use facilities, direct programs, and coordinate activities in various leadership roles need to provide input. Too often architects dictate program by facilities they design rather than heeding requests, needs, and input from those who are going to use the facilities.

Source: American Alliance for Health, Physical Education and Recreation, 1201 Sixteenth Street, N. W., Washington, D. C. 20036.
Making Physical Education and Recreation Facilities Accessible to all. . .Planning, Designing, Adapting. May 1977, p. 89.

ADAPTED EQUIPMENT FOR PHYSICAL ACTIVITIES

Adapted equipment and devices are used by many handicapped individuals to permit their full participation in various physical activities. Not all handicapped participants need or want these devices. However, physical educators and recreators should be aware of them so that no participant is barred from an activity due to lack of knowledge about a particular device that could have facilitated participation.

AQUATIC DEVICES

Tot Dock - (Stadiums Unlimited, Box 374, Grinnell, Iowa 50112) is an underwater portable swimming pool platform that rests on the bottom of the pool at heights of six to twelve inches, providing a solid base for swimming instruction. This is particularly useful for pools that have inadequate shallow ends. Cost: \$140.00 per platform. Homemade alternative: Although they are not as stable, plastic tumbling mats have been used for individuals to stand or lie on during swimming instruction.

Schwimmflugel - (Belleair International, 1016 Ponce de Leon Boulevard, Belleair, Florida 33516) are inflatable cuffs worn around each arm above the elbow to keep the nonswimmer afloat. Cost: \$4.75. Homemade alternative: Empty plastic bottles (capped) tied around arms with old nylon stockings or pieces of fabric are more cumbersome but less expensive to help beginners stay afloat.

Speedo Aqualift Swimsuit - (Blue Grass Industries, Carlisle, Kentucky 40311) a one-piece nylon tricot swimsuit, is constructed with an inflatable air bladder inside the front of the suit. When inflated, it will support up to a 200 pound adult, and may be gradually deflated as the swimmer becomes more skilled and use to the water. Cost: \$12.50 (all sizes). Homemade alternative: None known.

Aqua Bat - (Gander Mountain, Inc., P. O. Box 248, Wilmot, Wisconsin 53192). Tubing and a seat are affixed to these waterskis, making them usable by paraplegics, incomplete quadriplegics, amputees, and cerebral palsied persons. The tow rope may be held or tied to the tubing. The user steers the skis by leaning to either side. Cost: \$104.50. Homemade alternative: None known.

Bath Trolley - (Orthopedia GmbH, D2300 Kiel 14, P.O. Box 6409 Germany) is a plastic seat on four casters, resembling a gym scooter. The seat has a slightly curved backrest for stability and comfort and has slots cut into it to allow drainage of water. The trolley was designed to help leg amputees move from changing areas to pool or lakeside by propelling themselves with their arms. Cost: \$61.00. Homemade alternative: A gym scooter could be adapted by adding high quality casters and a backrest (optional). To construct a gym scooter, round off the corners and sand well a piece of 12" x 12" x 3/4 inch plywood. Mount four casters with rubber wheels on the corners using wood screws. Paint the scooter with Marine paint or the less expensive Marine Spar varnish (2 coats). A gym scooter could alternately be constructed of one of the many plastic materials now on the market.

BICYCLING EQUIPMENT

Schwinn Tandem Bicycles - (local distributors only: consult Yellow Pages of the telephone directory) are bicycles built for two riders that permit visually handicapped individuals to ride safely with non-impaired partners. Cost: \$160.00 and up.

Spina Bifida Range Tricycles - (George Fitt Engineering, Tankerton Road, Whitstable, Kent, England) are three-wheelers specifically designed so that persons of all ages who have no use of their legs can use hand propulsion to move the tricycle. Fixed gear drive from the rear axle results in bicycle pedals moving, thus exercising the rider's legs as well. Cost: \$150.00 - \$200.00.

Tricycle Body Support - (J. A. Preston Corporation, 71 Fifth Avenue, New York, N.Y. 10003) attaches to any tricycle frame, enabling children with poor balance to enjoy tricycle activities. The support adjusts for height and girth. Cost: \$15.25. Homemade alternative: An aluminum frame and canvas backing, similar to a wheelchair back, could be welded or bolted to a tricycle.

Special Pedals - (J. A. Preston Corporation, 71 Fifth Avenue, New York, N. Y. 10003). These wood devices with leather heel supports and straps attach to the pedals of bicycles or tricycles to keep the user's feet from slipping off. Cost: \$16.40 (7-,8-,9-inch sizes). Homemade alternative: Could be constructed by attaching a 3/4 inch wide leather strap around one end of a seven to nine inch piece of wood, securing another piece of leather at the heel for support; securely attach this to each bicycle pedal.

Buddy Bar - (Funway, 13930 Stansbury, Detroit, Michigan 48227) is an attachment that joins two regular bicycles side-by-side approximately one yard apart, permitting visually handicapped, mentally retarded, or physically impaired persons to ride beside non-handicapped partners. Cost: \$40.00. Homemade alternative: Join a piece of metal tubing securely to the frame of each bicycle below the handlebars.

DEVICES FOR BALL ACTIVITIES

Adjustable Batting Tee - (Flaghouse, Inc. 18 West 18th Street, New York, N. Y. 10011) can be raised to any height from 27 inches to 43 inches accommodating batters with a wide range of ages and heights. This enables individuals with poor coordination or visual impairments to practice batting skills and participate in softball or baseball games. Price includes telescoping tee, base, and plastic ball. Cost: \$4.50. Homemade alternative: Cut out the top end of a wiffle-ball bat and slip the bat through the end of a traffic cone. Or, cut a piece of 3/4 inch plywood into a two x two foot square; anchor a two to three foot tall pole or dowel (1 1/2 to 2 inches diameter) into the base with nails or screws. Attach a piece of hose with an adjustable clamp to the pole, which can then be raised or lowered according to height of children participating.

The No Miss Mitt - (Libra International Distributors, 473 North Church Street, Moorestown, New Jersey 08057) is a baseball glove constructed of special pile materials so that a velcro-covered plastic ball will adhere to it. This ensures a successful experience for children who may never have caught a ball. Cost: \$5.00 (ball and glove). Homemade alternative: Make a mitt or mitten from an old towel and sew velcro strips to it; cover an old plastic ball with velcro strips. Or, make a ball by stuffing nylon stocking into an old sock, tucking loose ends of the sock inside and sewing shut; attach velcro strips to this.

Audible Football, Softball, Soccerball - (Sensory Aids, 175 Terminal Drive, Plainville, New York 11803) are regulation balls with battery powered sound sources inside that assist visually impaired persons in locating them by sound alone. Cost: \$50.00. Homemade alternative: No effective and safe alternative known.

Cube Ball - (Elementary Gym Closet, Inc., 2511 Leach Road, Pontiac, Michigan 48057) is an eight-inch polyhedron made of polyurethane particularly suited for indoor ball games that involve kicking. The ball's shape permits it to roll accurately where kicked, but it does not roll too far or too fast from players with locomotor difficulties. Cost: \$5.00. Homemade alternative: A large sponge or piece of foam can be cut into a polyhedron shape with scissors or, more easily, with an electric knife. When using an electric knife, hold the piece of sponge or foam in a vise, between two stacks of books, or between two cinder-blocks.

Left-handed Catcher's Mitt - (The Left Hand, Inc., 140 West 22nd Street, New York, N. Y. 10011) is a regulation Spaulding glove designed for people who catch with their left hand (amputees, physically handicapped or left-handed). Cost: \$21.95. Homemade alternative: None known.

BOWLING AIDS

Bowling Booster - (Russell Bechtel, 6943 Bittersweet, Pensacola, Florida 32506) is a fiberglass portable ramp for use by persons who cannot move their arms to propel a bowling ball in the conventional manner. Ball can be propelled down the ramp using the feet, hands, arms, or other body part. Cost: \$47.50. Homemade alternative: A wooden ramp with sides could be constructed, but it would not be this portable, lightweight and friction-free.

Bowling Ball Pusher - (North American Recreation, P. O. Box 758, 33 Knowlton Street, Bridgewater, Connecticut 06601), a long-handled rake-like device, is an aid for persons who cannot bend and throw a bowling ball but are too mobile to require a bowling ramp. Cost: \$39.95. Homemade alternative: A pushbroom could be used; or, cover the end of an old bristle-less pushbroom with foam and felt (so that the bowling lane is not damaged). A device similar to a shuffleboard pusher but with a larger head would be ideal.

Handle Grip Bowling Ball - (North American Recreation, P.O. Box 758, 33 Knowlton Street, Bridgewater, Connecticut 06601) is a regulation bowling ball with a handle that automatically retracts flush into the ball when released; individual finger strength and dexterity are not required to use this ball. Cost: \$52.50. Homemade alternative: None known.

Bowling Ball Holder Ring - (George H. Snyder, 5809 N.E. 21st Avenue, Fort Lauderdale, Florida 33308) attaches to the arm of a wheelchair and holds a bowling ball securely in the bowler's lap while he/she wheels up to the foul line. Cost: \$9.99. Homemade alternative: Any piece of metal (heavier than a coathanger, though) bent in a circle and clamped to the wheelchair arm will do.

Mahler Standard Bowling Rail - (American Foundation for the Blind, 15 West 16th Street, New York, N. Y. 10011) guides visually impaired bowlers in a straight path to the foul line and meets standards of the American Blind Bowling Association. Cost: \$28.95. Homemade alternative: Use the end lane and let participants use the wall as a guide. In center lanes, blind bowlers can use the ball return as a guide.

ASSISTIVE DEVICES FOR YOUNG CHILDREN

Audible Nerf Ball - (Science for the Blind Products, 221 Rick Hill Road, Bala Cynwyd, Pennsylvania 19004) is a soft, spongy play ball that beeps continuously when turned on; especially suited for small visually impaired children. Cost: \$37.50. Homemade alternative: Nerf balls can be cut from sponges or foam, but it is doubtful whether a bell or baby's rattle could be safely or effectively inserted into the ball.

New Elevated Sandbox - (Game Time, 6874 Washington Avenue So., Eden Prairie, Minnesota 55343) can be used for either sand or water play and is elevated to accommodate children in wheelchairs. Cost: \$169.00. Homemade alternative: Make a table, approximately 30 inches in height, with part of the table top cut away so that a metal laundry tub or child's plastic sandbox can be secured in the center.

The Mobile Mat - (Jayfro Corporation, P.O. Box 400, Waterford, Connecticut 06385) is a 16 x 43 inch padded platform with velcro safety straps and four heavy duty roller bearing casters. It enables non-ambulatory children to participate in locomotor activities and encourages development of crawling. Cost: \$89.00. Homemade alternative: Make a large scooter board out of plywood (see "Bath Trolley" for instructions), or secure two small scooter boards together; cover with foam padding and a fabric cover. Sew velcro straps to the fabric covering.

Floor Sitter - (North American Recreation, P.O. Box 758, 33 Knowlton Street, Bridgewater, Connecticut 06601) resembles a chair without legs that permits small children to maintain a sitting position during floor play. Cost: \$54.00. Homemade alternative: Remove the legs from an old chair; pad the chair if necessary and attach a belt to the chair, which will prevent the child from slumping onto the floor.

Layered Ball - (Flaghouse Inc., 18 West 18th Street, New York, N. Y. 10011) is a soft, spongy, multicolored ball that is easy for a small or a motor-impaired child to grip because the foam material is layered. Cost: \$2.10. Homemade alternative: Yarn balls, which are fluffy and easy to grasp, are an inexpensive alternative to purchasing balls. Make two cardboard doughnuts by cutting two-inch centers out of two four-inch circles of cardboard. Hold the two doughnuts together and wrap yarn around them until the centers are almost full. With a knife, cut the yarn around the outside edge of the doughnut. Slide the two cardboard circles apart and tie the yarn tightly in the center with string or another piece of yarn. Cut away the doughnuts and fluff up the yarn ball until it is round.

OTHER ADAPTED EQUIPMENT IDEAS

The Skate Aid - (Hein-A-Ken, P.O. Box 56, Thief River Falls, Minnesota 56701) is a pyramidal device similar to a walker with runners, giving support to novice ice skaters. Cost: \$59.95. Homemade alternative: Some ice skating programs use chairs, but these are not as safe and stable as the above device.

Flipski - (Pauls Sports, Inc., Route 1, Box 615P, Elcelsior, Minnesota 55331) is an outrigger ski for amputees, the tip of which flips up into the vertical position when the skier needs to use it as a crutch for walking. Outrigger skis resemble ski poles with little skis on the end and are used instead of ski poles by amputee and other physically handicapped skiers to assist in balancing. Cost: 118.00. Homemade alternative: None known.

Hot Shot Automatic Billiard Cue - (A to Z Industries, 118112-5 Bryand Street, Northridge, California 91324) is a billiard cue that is spring-loaded by pressing the tip against any available surface. Persons with amputations, cerebral palsy, muscular dystrophy, or high-level spinal cord injuries need only lightly press the trigger to fire the cue. Cost: \$34.95. Homemade alternative: None known.

Rug Croquet - (Creative Playthings, Princeton, New Jersey 08540) is identical to a regular croquet game, except that wickets stand on little feet. This game is ideal for bringing a physical activity to youngsters who cannot go outside. Cost: \$5.50. Homemade alternative: Make stands for regular croquet wickets by drilling a small hole in blocks of wood and inserting the ends of wickets into the holes.

NOTE: Prices are subject to change.

EXAMPLES OF LOW COST ADAPTED EQUIPMENT ALTERNATIVES

Regular Equipment

Adapted Equipment

Alternative Equipment

Ping-Pong Table

A. Standard institutional model, 5'x9'x3/4" with folding hinges in center
cost--\$147.50

B. Standard model, 5'x9'x3/4" with height adjustable from 30"-24", 12" removable side panels, center hinge and incline table returning ball to ends
cost--\$256.00

C. Standard model, 5'x9'x3/4", a self-made side panels 1'x 4'x3/4", raised center legs to incline table
cost--\$167.50

Hockey Set

A. Wooden set of 12 sticks and pucks
cost--\$43.00

B. Plastic set with 12 red/yellow plastic sticks and 3 pucks
cost--\$35.00

C. Broom set with 12 wooden house brooms (used, no cost; new \$2.50 each), plastic ball
cost--from 50¢ to \$30.00

Bowling

A. Regular bowling ball 12-16 lbs.
cost--\$35.00-\$40.00

B. Bowling ball with retractable handle, 12-16 lbs.
cost--\$59.95

C. Plastic bowling set 4 lb.-3 finger plastic ball, 15" hollow pins pattern sheet, score pad
cost--\$50.00

Playground Ball

A. 16" rubber playground ball
cost--\$5.75

B. 18" cage ball
cost--\$24.95

C. 18" beach ball, cost--\$4.00 heavy duty balloon, cost--\$2.00 9" vinyl-coated foam ball
cost--\$33.00 dozen

Baseball and Bat

A. Regulation softball, rubber cover
cost--\$2.50
hardwood bat
cost--\$4.50

B. Plastic wiffle ball
cost--75¢
Plastic wiffle bat
cost--\$1.50

C. Self-made foam bat, using wooden broom handles and wrapping the ends with foam rubber
cost--\$1.50
plastic ball
cost--75¢

Cards

A. Regulation size, bridge or poker
cost--\$6.25 dozen

B. Giant face cards with double size faces and numbers
cost--\$6.25 dozen

Regular Equipment

Adapted Equipment

Alternative Equipment

Chinese Checkers

- A. Regular 11 1/2" plastic board with marbles
cost--\$1.95 each
- B. Peg Chinese Checkers with 11 1/2" board and large plastic "no roll" pegs (replacing marbles)
cost--\$1.95 each

Checkers

- A. Regulation 30 piece plastic set
cost--\$9.95/1 doz. sets
- B. Enlarged peg checker set with raised squares and large square and round peg pieces
cost--\$9.95/1 doz. sets

Domino Set

- A. Institutional plastic set, tiles are 2" x 1"x 3/8"
cost--\$1.95 each
- B. Enlarged plastic set, with 28 tiles, 2 3/4"x 5 1/2 x 3/4", and protruding spots
cost--\$2.50 each

Mini Trampoline

- A. Metal 34" x 48" frame, with 25" x 40" mat, 60 springs, weight 45 lbs.
cost--\$169.95
- B. Heavy tube with strong fabric covers and webbed supports, weight 12 lbs.
cost--\$34.00
- C. Self-constructed trampoline with heavy tractor inner tube, double strength canvas and nylon lashing
cost--\$16.50

Gym Scooter

- A. 12" x 12" x 2" polypropylene board with 2" bearing wheels
cost--\$11.00
- C. Self-made scooter, using 12" x 12" x 2" pine board and 2" caster wheels
cost--\$7.00

Ramps

- A. Cement ramp 4" x 3 1/2" with 3" rise over the 4" run
cost--\$3.00-\$4.00
- B. Metal ramp "handi-ramp", 5' x 32" with hinge at center and handles for portability
cost--\$100 - \$125
- C. Wooden ramp 4' x 4' x 3/4" plywood using 6-4" - 2" x 4" for support
cost--\$22 - \$27

Note: Prices are subject to change

ADDITIONAL RESOURCES FOR HOMEMADE EQUIPMENT AND ADAPTED DEVICES

Corbin, Charles B. Inexpensive Equipment for Games, Play and Physical Activity. Dubuque, Iowa: Wm. C. Brown Company, 1972.

Cowart, James F. Instructional Aids for Adaptive Physical Education. Hayward, California: Alameda County Schools (224 West Winton Avenue, 94544), 1977.

Gallahue, David L. Developmental Play Equipment for Home and School. New York, New York: John Wiley and Sons, Inc., 1975.

Physical Education and Recreation for the Handicapped: Information and Research Utilization Center (IRUC). Homemade Innovative Play Equipment for Activities in Physical Education and Recreation for Impaired, Disabled, and Handicapped Participants. Washington, D. C.: AAHPER/IRUC (1201 16th Street, N. W., 20036), 1973, 92 pp., \$9.20.

Werner, Peter H., and Richard A. Simmons. Inexpensive Physical Education Equipment for Children. Minneapolis, Minnesota: Burgess Publishing Company (7108 Ohms Lane, 55435), 1976.

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