STEP-BY-STEP

An Interactive Guide to Mobility Techniques Dr. Sandra Rosen





Objectives

- •Identify Instructional Video, Study Guide, and Review Guide components.
- •Integrate curriculum into professional preparation of vision professionals and within existing programming for direct service professionals.
- •Demonstrate use of materials with individuals who are not vision professionals but assist in practicing selected skills with a traveler who is visually impaired. (e.g., family members, friends, regular education and rehabilitation professionals, nursing home staff, assisted living staff, parks/recreation staff, and others).



Step-By-Step

Interactive instructional computer program

Combines text, full-motion video, stop-action video & photographs

• To demonstrate and describe basic, intermediate, and advanced mobility skills used by travelers who are blind.



Why Was Step-by-Step Developed?

Need for tools to more efficiently prepare O&M specialists

Call by some who prepare O&M specialists for more curricular uniformity



Interactive Features Enable User To...

- 1. Test understanding of the techniques
- 2. Identify performance errors commonly made by those who are learning to travel
- 3. Determine appropriate measures to correct each error



Unique Computer-Assisted Learning Design

- 1. Provides self-paced instruction and Immediate feedback on performance
- 2. Fosters skills in visual assessment analysis, task analysis, and instruction
- 3. Lends itself to individual use and collaborative learning



Instructional Theories Behind Step-by-Step (1)

- Interactive multimedia instruction has proven track record in effectively preparing educators and other professionals
- Simulations are recognized as efficient and effective way of teaching and learning complex dynamic systems
- Experience shows this approach reduces stress of learners & increases learning of techniques.



Instructional Theories Behind Step-by-Step (2)

Learner Control, individualized pacing allows user to:

- Work at one's own speed and review material as often, & whenever, one wishes
- "Stop the world" and "step outside" of the simulated process to review and to better understand material
- Break instructional into manageable chunks of subtopics or review an entire skill in one sitting



How Was Step-by-Step Developed?

- Development began as a single-university effort to address needs for visual tool to use outside of class time to <u>learn</u>, <u>review</u>, and <u>practice</u> the skills they were learning to teach mobility techniques.
- Field test results revealed significant differences among the universities in how students were taught to perform mobility skills.
- A symposium held at San Francisco State University



How Was Step-by-Step Developed (continued)?

- Participants demonstrated their individual methods for performing each technique
- As a nationally representative group, we came to a general consensus on acceptable standard and alternative methods for performing each technique.
- Techniques included do NOT represent all possible variation but DO represent those that were generally endorsed this nationally representative group.



International Use

- Based upon international responses, it appears that mobility skills are performed with striking similarity everywhere.
- The program has thus been found to be applicable in many parts of the world.



Who Can Use Step-By-Step?

- University Programs (students and faculty)
- Teachers of the Visually Impaired
- Vision Rehabilitation Therapists
- Orientation and Mobility Assistants
- Vision professionals returning to field after extended absence



Who Else Can Use Step-By-Step?

- Regular and special education teachers
- Rehabilitation professionals
- Health care professionals
- Health care volunteers

- Public service personnel
- Anyone who may wish to learn guiding skills in order to become more effective guides



The Seven Modules of Step-By-Step

Each module covers mobility techniques related to either:

- A specific method of travel or
- Travel in specific environments



Guide Techniques

With and Without a Cane

- Basic Guiding
- Negotiating Narrow Spaces
- Reversing Direction
- Transferring Sides
- Negotiating Doors & Stairs



Non-Cane Techniques

Directional

- Trailing
- Direction Taking (Tactual)
- Traversing Open Spaces

Self-Protective

- Lower Hand & Forearm
- Upper Hand & Forearm



Special Techniques

Exploration

- Search Patterns / Dropped Objects
- Contacting & Exploring Objects
- Seating

Handling Unsolicited Assistance

- When Not Carrying a Cane
- When Carrying a Cane



Long Cane Techniques

- <u>Detection</u>: Diagonal, touch, touch & slide, and shortened cane
- Negotiating Door and Stairs: Sidewalk recovery; obstacles in the travel path; vehicles across the travel path
- Shorelining: Diagonal trailing, three point, touch & drag, and touch trailing



Street Crossings

- Approach: Standard Approach; curb ramps & blended curbs; negotiating an obstacle at the corner; multiple crossings at an approach; crossing perpendicular to line of travel; curb contact (at corner vs. mid-block
- Alignment: Parallel and perpendicular traffic; skewed intersections
- <u>Timing</u>: Unsignalized and signalized intersections
- <u>Executing</u>: Basic crossing; recovery from a veer; vehicle in the travel path; negotiating median strip
- Signaling drivers: Ready to cross (extra arc); traveler is not ready to cross



Transportation

- Automobile Travel
- City Bus Travel
- Subway Travel



Environment-Specific

- Escalators
 - With guide
 - With cane
- Revolving doors
- Areas without sidewalks
- Gas stations





STEP-BY-STEP A Sample Technique

Additional Features

- Detailed <u>user manual</u> includes technical aspects of using program.
- Comprehensive study guide includes techniques; instructional strategies; teaching tips; prerequisite skills and appropriate teaching environments; limited modifications for travelers with special needs; and more.
- Special introduction and appendices includes glossary of terms and matrix of prerequisite/related techniques
- Comprehensive review guide includes a quick reference tool and brief descriptions



How to Order Step-By-Step

- Part 1 (Guiding, Non-Cane, Special Techniques)
 - Catalog Number: 8-75981-00
- Part 2 (Long Cane, Street Crossings, Environment-Specific, Transportation)
 - Catalog Number: 8-75982-00
- Cost: \$15 each
- Federal Quota Eligible

