



Planning Spaces for Accessibility

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2015 CEFPI Midwest Great Lakes Regional Convention

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Planning Spaces for Accessibility

Agenda

- Welcome & Introductions
- Overview Of Session & Expectations
- Understanding Accessibility Needs
- “Real Life” Experiences
- Realizations & Insight
- Closing Remarks
- Adjourn

Percentage of Americans with Mobility Disabilities



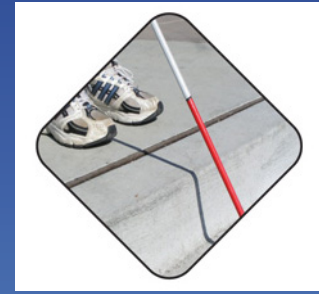
2.6% of the non-institutional population

Just over 6.8 million Americans

The most visible of Disability Groups

- **25% or 1.7 million wheelchair or scooter riders (0.6 % of population)**
- **6.1 million users of other mobility devices, such as canes, crutches, and walkers (2.4 % of population)**
- **Canes are by far the most widely used mobility devices**
 - **4.8 million Americans use them**
 - **70 % of mobility device users**

Percentage of Americans with Vision Disabilities



3.1% of all Americans have visual impairments

More than 3.4 million Americans are either legally blind or visually impaired
Of those, approximately 1.3 million Americans are legally blind (0.3%)

Second most visible of Disability Groups

- Under the age of 18 less than 1% of persons visually impaired
- Persons age 6 and older (0.7%) have a severe vision
- Americans with some form of vision impairment
 - 15% of Americans age 45-64 years old
 - 17% of Americans age 65-74 old
 - 26% of Americans age 75 years and Older

Percentage of Americans with Hearing Disabilities



20% of Americans struggle with Hearing Loss

By the age of 65, 33% of Americans suffer from Hearing Loss

Disability most of us will encounter in our lifetimes

New ADA Requirements For Persons with Hearing Disabilities

The New Hearing Standards



Define qualified interpreter:

- **Sign interpreters use sign language**
- **Oral transliterators**
 - **repeat everything slower**
 - **clearly enunciated inaudible whisper**
- **Cued-language transliterators**
 - **use hand movements to convey words syllable by syllable**
 - **counter miscommunication of similar mouth movements**
- **VRI (Video Remote Interpreting) interpreters**
 - **work offsite via telecommunication (audio and visual)**
 - **communicate between two parties when on-site interpreting is not available, such as hospitals and police stations**

The New Assistive Listening Standards



Definition

- An amplification system utilizing transmitters, receivers and coupling devices to bypass the acoustical space between a sound source and a listener by means of induction loop, radio frequency, infrared, or direct wired equipment.
- **Required anywhere there is amplified sound**
 - An assistive listening system shall be provided in each assembly area where audible communication is integral to the use of the space.
 - “Assembly area” refers to any space where a group of people might get together and is not tied to the occupancy of the room as in previous standards.



The New Assistive Listening Standards



- The standard calls for:
 - scaled quantity of receivers
 - [i.e. 501 – 1,000 seats = 20 + 1/33 seats over 500]
 - **not 4% of the seating as was previously directed**
 - In larger facilities this reduces the quantity of devices that were previously required
 - “Hearing aid compatible receivers”
 - **interface with telecoils through a neckloop**
 - **at least 25% of receivers must be hearing aid compatible**
 - **Systems identified by International Symbol**



Assistive Listening in Various Venues



Not all devices are compatible with hearing aids.

Cinemas, theatres, lecture halls and classrooms:

- FM systems — a transmitter is hooked up to the sound system and sends the audio to a receiver
- Infrared systems — an emitter in the space that broadcasts sound from the speaker system to individuals wearing lightweight headsets or body units
- In theatres, Rear Window Captioning - units emit a caption the hearing impaired guest can pick up with a device, provided by the theatre, that slips into their cupholder



Universal Design



- **What Is Universal Design?**
 - “There is a difference between following the ADA checklist and focusing a practice on Universal Design.” “Design powerfully and profoundly influences us and our sense of confidence, comfort, and control. Variation in ability is ordinary, not special and it affects most of us for at least part of our lives.” [Josh Safdie, Assoc. AIA, Director Institute for Human Centered Design Studio, 2011 AIA National Convention]

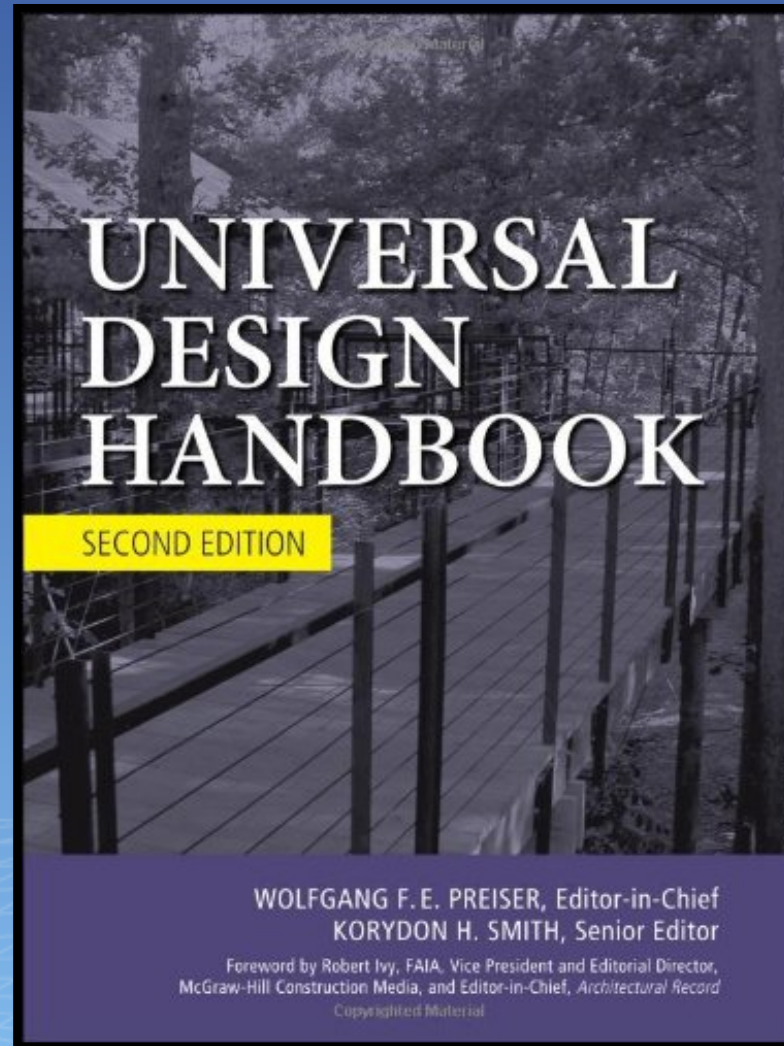
Universal Design Principles



- **Equitable Use**
 - Useful & Marketable to diverse abilities
- **Flexibility in Use**
 - Accommodates wide range of preferences & abilities
- **Simple, Intuitive Use**
 - Easy to Understand by all
- **Perceptible Information**
 - Communicates Info
- **Tolerance of Error**
 - Minimizes hazard of intended use
- **Low Physical Effort**
 - Efficient, comfortable, minimum fatigue
- **Size & Space**
 - Appropriate for all



Universal Design Handbook





Universal Design-Hearing



CaptionCall



Smart Care System

Universal Design-Hearing



Gaggenau Cooktop



Sony's Closed Caption Glasses



Wooster's
NITEGLOW



“Real Life” Experiences



Realizations & Insight



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Subjective Assessment of Classroom Acoustics

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Background Noise

To subjectively assess your classroom for background noise problems, use the following checklist:

	Yes	No
Heating, ventilation and air conditioning system (HVAC) noise is clearly audible.		
The teacher turns off classroom equipment for important lessons.		
Noise from the playground or highway is noticeable.		
Sounds from adjacent rooms or hallways are easy to hear.		
The room just seems noisy.		
Because of room noise, it is hard to communicate especially at a distance.		

Reverberation

Though less easy to hear in the average classroom, reverberation is still present and can interfere with speech intelligibility through a smearing effect. Overall the volume of the room and the absorptive characteristics of the materials making up the classroom walls, floors and ceilings, determine reverberation.

Reverberation problems are possible if the classroom has any of the following characteristics:

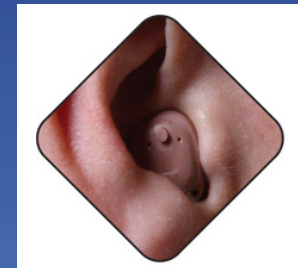
Classroom Features	Yes	No
A hard ceiling without acoustic ceiling tiles		
Ceiling height is over 10 feet		
Acoustic ceiling tiles have been painted		
Walls are constructed of non-acoustic absorptive materials (e.g., hard-surfaced, tiled floors)		
Floors are constructed of non-acoustic absorptive materials		
• Concrete		
• Floor tile on concrete		
• Wood floor		
Hard to communicate in room, especially at a distance		

Interpretation of Checklist Results

If you answered yes to any of the checklist items, your classroom may have acoustic problems of sufficient magnitude to affect listening and learning. Notify your principal that you suspect problems and request that the room be more fully evaluated.



Various Venues



Restaurants

- must provide a "quiet area" for those with hearing loss, although there are no regulations for how quiet that area must be.
- they must provide a well-lighted area for those with no hearing who lip read

Hotels

- Emergency Warnings
 - visual alarm such as a strobe light that works with a smoke/fire detection system
 - alarms such as those with a shake-awake clock that vibrates the bed
 - a door knock alert - a light flashes when there is a knock on the door - if there is an emergency
 - Some systems must be activated by staff
- Phone flashers (a light the flashes when the phone is ringing) and phone amplifiers
- Currently, many hotels provide portable systems
 - *All systems are susceptible to electrical outages*

