2.1 Considering Body Size, Shape, and Movement

Objectives
Engender an awareness of the assumptions about body size, shape, and mobility that are incorporated into the design of public facilities. Develop a profile of a “typical” user.

Create an awareness of the access barriers that exist for people with vision, speech-hearing, or mobility impairments. Brainstorm solutions to certain access barriers and discuss ways to increase usability of selected facilities.

Materials needed
Copies of the handout

Time needed
Thirty to sixty minutes

Instructor directions
Take your students on a tour, or have them take a tour themselves, examining the public facilities of your school or campus, identifying assumptions incorporated into their designs.

Ask them to discuss who may and may not be able to use the facilities satisfactorily, as designed, including any access or usage barriers to people with physical disabilities.

Have them brainstorm ways to improve the usability of selected facilities and develop solutions to access barriers.

Variation 1
Have your students identify one assumption incorporated into the design of one of the facilities (drinking fountain, phone booth, etc.). Ask them to gather formal or informal data about the number of people on campus that might not be able to use the facility satisfactorily, based on the design assumption, and suggest one or two ways to make the facility more useful to those people.

Variation 2
Have your students choose one of the access or usage barriers they have identified and suggest a way to remove the barrier. Have them research the cost involved and identify one or two ways of funding the access strategy they have suggested.
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Handout

**Directions**
Take a tour examining the public facilities of your school or campus, which may include:

- Telephone booths or stalls
- Drinking fountains
- Bleachers
- Sinks and stalls in public restrooms
- Curbs, ramps, and railings
- Chairs and tables
- Turnstiles
- Elevators and escalators
- Stairs and staircases
- Vending machines
- Doors and doorways
- Fire alarm boxes

Answer the following questions:

What assumptions about the size and shape of the users (height, weight, proportionate length of arms and legs, width of hips and shoulders, hand preference, mobility, etc.) are incorporated into the designs?

How do these design assumptions affect the ability of you and people you know to use the facilities satisfactorily?
How would they affect you if you were significantly:
Wider or narrower than you are?

Shorter or taller?

Heavier or lighter?

Rounder or more angular?

More or less mobile/ambulatory?

Identify any access or usage barriers to people with physical disabilities. Answer the following questions:
Are classrooms accessible to people who can’t walk up or down stairs?

Are emergency exit routes usable by people with limited mobility?

Are amplification devices or sign language interpreters available for people with hearing impairments?

Are telephones and fire alarms low enough to be reached by people who are seated in wheelchairs or who are below average height?
Are audio-visual aids appropriate for people with hearing or vision impairments?

Describe the experience of a person in your class or school who has a mobility, vision, speech, or hearing impairment.

**Variation 1**
Identify one assumption incorporated into the design of one of the facilities (drinking fountain, phone booth, etc.). Gather formal or informal data about the number of people on campus that might not be able to use the facility satisfactorily, based on the design assumption. Suggest one or two ways to make the facility more useful to those people.

**Variation 2**
Choose one of the access or usage barriers you have identified and suggest a way to remove the barrier. Research the cost involved. Identify one or two ways of funding the access strategy you have suggested.