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The purpose of this study was to ascertain the perceptions of persons with and without disabilities regarding the design and function of certain accessible picnic elements.

Questions addressed included:

- What about the accessible elements (picnic table/fire ring/cooking grill) are useful and well designed?
- What design problems still exist with these elements?
- Are there perception differences between persons with and without disabilities on the design function for these picnic elements?
- What would have to change about the site elements to make them more useable?

Method

The specific objective of this study was to gather the opinions of persons with disabilities and persons without disabilities who were using an accessible picnic site within a Minnesota urban park during the summer of 2000. All persons with disabilities in this study were either adults who use wheeled mobility devices (scooter, power chair, or manual chair), were without a cognitive disability, and able to approach the picnic site independently; or the parent or caregiver of a person with a disability. An effort was made to include subjects from a range of disability type, a range of age, a range of family or group types, and using a range of mobility device type. Persons without disabilities selected for the study included individuals who were using accessible picnic elements, who did not have a visible or apparent disability, and whose group did not include anyone with an obvious disability.

The picnic sites for this research were located along an accessible route and met the current guidelines of accessibility as proposed by the Access Board. An effort was made to include a range of table, fire ring, and cooking grill designs. The participants were approached by a data collector, invited to participate in the study, and queried on a series of fixed-choice and open-ended questions with each response recorded by the data collector.

Each single event contact with a participant took approximately 15 minutes. The designated picnic sites for this study were located in three different park agencies. The 12 picnic areas were located either in a regional park next to a lake, in a residential neighborhood or in a county campground. All picnic sites used were in the Minneapolis/St. Paul metropolitan area.

The picnic and campground sites used in this study were chosen if they met the accessibility guidelines for outdoor developed areas proposed by the Architectural and Transportation Barriers Compliance Board (Access Board) as of September 1999. This study specifically targeted accessible picnic tables, fire rings, and pedestal cooking grills (sections 16.5, 16.6, and 16.7 of the Access Board guidelines). Once accessible picnic and camping sites were selected in the Minneapolis metropolitan area, permission and cooperation was secured from Hennepin Parks, Minneapolis Parks, and Bloomington Parks management.

Results and Recommendations

One hundred and four (104) interviews were conducted from May 21, 2000 to September 9, 2000 on 38 separate days. Two homogenous groups were sought for this study: a) individuals who used wheeled mobility devices (wheelchairs or scooters), and b) individuals who did not use wheeled mobility devices. The participants in this study included 49 persons with disabilities and 55 persons without disabilities. People with disabilities in this study ranged between the ages of 7 and 92 with a mean age of 36. There were a variety of people with varying disabilities. Spinal cord injury, spina bifida, multiple sclerosis, and cerebral palsy represented 75% of the disabilities in this study.

The questions and results of this study generated a number of recommendations regarding the design and function of certain accessible picnic elements. These include:

- What about the accessible elements (picnic table/fire ring/cooking grill) are useful and well designed?
- Tables - Table designs that provide space for more than one wheelchair and/or the wheelchair space(s) are situated for social interaction.
- Enough leg space/knee clearance for sitting close to the table, or nothing blocking a wheelchair user's legs if they choose to transfer from their wheelchair to the bench. One person stated having a table with extra leg space/knee clearance reduces the likelihood of kicking another table user due to the problem of spastic legs.

Cooking Grills

- Paved surfaces (e.g. concrete, asphalt) under grill provides greater ease in maneuvering while using the cooking grill than loose gravel or uneven grass.
- Stair step adjustment of cooking grill was perceived to be easier to manipulate for those wheelchair users with limited arm strength.

What design problems still exist with these elements?

The amount of firm surface around a picnic table (area that does not have erosion or roots interfering with access). Changes in level around the border of the firm surface also caused maneuvering problems.

It is difficult to identify what tables are wheelchair accessible due to the lack of clear identification.

Portable tables are repositioned by previous users. This compromises or blocks access to the accessible picnic site or picnic element.

Erosion that occurs over time that compromises wheelchair access.

Elements that are directly in the sun are not usable for wheelchair users with heat sensitivity.

Fire ring/cooking grills that are difficult for some wheelchair users (adjusting the cooking grill or charcoal tray). Some persons with disabilities consider grills too high.

Ground surface around fire ring is sometimes not firm enough.

Are there perceived differences between persons with and without disabilities on the design function for these picnic elements?

The quantitative data that measured the responses to the questions indicated that there was little difference between persons with and without disabilities regarding their perceptions of the functional aspects of picnic sites. However, the qualitative data regarding the suggestions and recommendations offered by persons with disabilities indicated that persons with disabilities did find some problems with the functional aspects of these sites that inhibited their use. These problems included: a) independently adjusting the grill surface; b) the firmness of the ground surface around the picnic elements; c) picnic tables not on accessible routes; and, d) picnic tables located in unattractive spots, either located directly in the sun, or away from main activities or facilities.

There was a difference in who accesses information about the picnic site. Persons with disabilities need more information about the existence and location of accessible picnic sites.

Persons with disabilities perceive more problems with grill heights than persons without disabilities.

There were a number of comments from parents who specified that picnic tables that had tabletops 31 inches or higher from the ground were too high for their elementary aged children.

What would have to change about the site elements to make them more useable?

More information about location of accessible picnic sites. Perhaps label tables with international symbol of accessibility when they meet accessibility guidelines.

More curb cuts in various locations by popular attractions.

More attention paid by managers to the issue of accessible tables being moved to inaccessible locations in a park.

Provide adjustable grill surfaces that can be more easily moved up and down by a person with a disability.