

Toward the development of consumer-based criteria for the evaluation of assistive devices

Batavia, A. I. & Hammer, G. S.

summarized for WheelchairNet
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Note

- This research article has been chosen, summarized and reported in this venue to inform the community of persons interested in the more successful selection of assistive technology devices. Much research remains to be done in this area but perhaps these criteria can serve as the basis for those interested in the process of making more informed decisions. Interested readers are invited to obtain the original research article and read it in its entirety.

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Abstract

- The most important basis for evaluating an assistive device is whether it satisfies the needs of the disabled consumer. However, the factors that consumers consider in determining whether a device meets their needs are not well understood. This preliminary study applied a small focus group process to identify and prioritize factors used by long-term users--a panel of consumer experts with mobility impairments and a panel of consumer experts with sensory impairments. In total the panels identified and prioritized 17 general factors for 11 types of assistive technologies. This study constitutes an initial step toward the development of design, engineering, and selection criteria based on the specific concerns of consumers.

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Introduction

- There has been no comprehensive analysis of the criteria by which assistive devices must be judged--the needs of consumers with disabilities.
- Other studies have looked at attitudes toward and abandonment of assistive devices.
- Formalizing the consumer perspective remains a novel concept.

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Introduction

- Formalizing the consumer perspectives on AT so that they can impact device design and policy implementation remains a novel concept.
- Assessment of design and policy should be based on factors important for consumers.

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The problem

- A wasteful and counterproductive cycle:
 - Individual gets an assistive device through a clinic or personal selection.
 - After use, the individual recognizes that it does not meet their needs.
 - Attempts to continue to use the device though dissatisfied or abandons using it.
 - Individual chooses another device that meets the previously unsatisfied need (but may not meet other needs.)

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Reason for the problem

- Consumers are not fully aware of needs.
- A learning process about needed factors occurs over time but time, funds, effort, and resources are wasted.
- Consumers forget or don't apply learned factors to subsequent decisions.
- Identification and prioritization of factors leading to acceptance and satisfaction is needed.

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The Study

- Small groups of expert consumers met in focus groups and identified and prioritized factors using the Delphi Method.
- 1. Factors for both mobility and sensory devices were identified.
- 2. Factors were randomized, then prioritized based on consumer needs. Each factor was considered present at an average level.

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