

Promoting successful indoor traveling in persons with multiple disabilities through the use of electronic orientation systems

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Abstract The Two basic objectives of programs for persons with multiple disabilities are increasing occupational engagement and promoting independent indoor traveling. Orientation and traveling may be serious problems for these persons, particularly those with visual impairment. These persons may have difficulties discriminating environmental landmarks and routes and associating them with specific destinations. To control the impact of these problems, electronic orientation systems have been developed that rely on direction cues or feedback cues. The former systems can be effectively used with persons with very low levels of functioning. In fact, they guide (direct) the persons to the destinations without requiring them to take special

initiatives or make orientation decisions. The latter systems can be effectively used with persons who (a) have initiative in walking towards the destination, (b) are efficient in modifying (correcting) their direction in relation to feedback, and (c) do not make frequent errors. The former systems can be rather obtrusive and conspicuous. The latter can be largely unobtrusive and highly respectful of the traveling abilities (independence) of the users. This paper presents an overview of these systems and their characteristics, formulates a number of considerations concerning their applicability and practicality, and examines questions for future research in the area.

