

## **Developing Powered Mobility with Children who have Multiple & Complex Disabilities: “Moving Forward”**

**Study start date:** *September 1999*  
*Due for completion in September 2005*

**Funding:** *The Health Foundation, Whizz-Kidz, Friends of Chailey, Chailey Heritage Clinical Services Research Fund, Whesby Fund*

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### **Background**

There is a paucity of literature in the area of children learning powered mobility skills and it is an area of neglect for research particularly in the U.K. Children with multiple and complex disabilities have traditionally been excluded from research studies and are also frequently discriminated against by NHS Wheelchair Services in their criteria on provision of powered wheelchairs.

### **The Study**

A qualitative constructivist research study has been carried out with children who were both disabled and non-disabled. The aims of the study were: to take a child-led approach to identify the learning stages and strategies for disabled children; to address the lack of knowledge for clinicians assessing children for powered mobility through provision of a clinical assessment tool based on a foundation of normal child development; to challenge some of the current clinical attitudes adopted by NHS Wheelchair Services towards provision of powered mobility for children.

The research question has emerged as ‘How does a child learn to use powered mobility to explore their environment?’ The methodology for the research design is constructivism and has been presented in terms of the criteria of grounded theory. The research methods were: observational study of 22 children (11 non-disabled and 11 disabled children) using video; a series of focus groups with 7 disabled children, using the principles of the video interactive guidance approach; and focus groups with a total of 22 prescribing clinicians.

Analysis and management of the data has included: the use of the computer package NVivo to conduct a line by line coding of the focus group data; cut and paste video editing to develop emerging themes from the observational video tapes.

## **Findings**

A developmental constructional framework of a child's learning for powered mobility skills has been formed. The framework consists of: 3 stages of learning; 6 levels of attention; and 5 progressions along a continuum of learning from novice through to expert. Findings on the use of electronic mobility guidance systems also form part of this framework.

Findings on the art of interaction between the child and clinician have emerged from the themes of 'play' and the core category of the 'responsive partner'. The art of interaction has also been set in context to the wider aspect of the absence or presence of the medical restorative rehabilitation model, the child and family centred model and the social disability model as part of meeting the children's needs within service delivery.

The findings are currently being written up for publication.

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### **References:**

**Durkin, J. (2000). Powered Mobility for Younger Children Compendium - Experiences of prescription and provision from Chailey Heritage. Powered Mobility for Younger Children, London, Whizz-Kidz.**

**Durkin, J. (2002). "The need for the development of a child led assessment tool for powered mobility users." Technology and Disability 14(4): 163-171.**