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## **Gaze-controlled technology for children with severe multiple disabilities - Parents and professionals' perception of gains, obstacles and prerequisites**

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**Introduction:** Children with severe multiple disabilities are a heterogeneous group. Their problems may entail both motor and cognitive dysfunction and they typically have difficulties within all areas of activities and depend on an adult to assist them in order to play, communicate and perform any other daily activities. As a common method for communication is eye pointing, use of gaze controlled technology is interesting. This technology is new and emerging, and there is a need for more knowledge of how and for what children use their systems, and factors that should be considered.

**Objectives:** Explore parents' and professionals' thoughts of how a gaze-controlled computer can be beneficial to children with severe multiple disabilities. All systems were provided primarily for communication, but were also used for other purposes such as play, leisure and school activities. A further aim was to investigate factors affecting usability.

**Method:** The study used a qualitative approach, involving content analysis of semi-structured interviews with the children's key persons (N=11).

**Results:** The analysis yielded three categories and twelve subcategories. There were gains for the children in terms of empowerment, social interaction, learning opportunities and efficient computer use. Inaccessibility, liability issues and technical failure were seen as obstacles, while the prerequisites included time, collaboration, stimulating content, know-how and opportunities.

**Discussion:** This study suggests that gaze-controlled technology can provide children who have multiple disabilities involving severe motor dysfunction and communicative and cognitive problems with new opportunities to communicate, interact and perform activities independently, as long as conditions are right.