Lay Summary: What factors do we need to consider when providing high tech communication aids?

The research was carried out by the University of Sheffield. It was part of the Communication Matters AAC Evidence Base project. The article was published in 2012. The project was funded by the Big Lottery Fund.

Aim of the research:
To find out about the factors that help people who have severe communication impairments to use "high tech" communication aids. "High tech" means powered communication aids.

Reason for the research:
People of all ages with severe communication impairments may be able to benefit from high tech communication aids. The range of technology is increasing rapidly and can assist more people but without support people cannot benefit fully. It is important to look at all the research that has been published about high tech communication aids to find out what is known.

Method:
The research was a systematic literature review. It looked at articles about research into the use of high tech communication aids published in English in peer-reviewed (academic) journals from 2000 to 2010. It found 27 relevant articles from 6 countries, including the United States (15 articles) and United Kingdom (6 articles). The research studies reported in the articles involved over 350 people who either used AAC or were parents or carers of people who used AAC, and over 700 professionals. The review identified the common themes reported in the articles.

Findings:
The review found 10 factors that are important:

1. Ease of use – people who use AAC and their families said that you needed knowledge and time to programme communication aids. It was often perceived as difficult and time-consuming. Some parents said they benefited from learning from other parents.

2. Reliability – problems that stopped people using their aids included: batteries running out, aids being broken, not working or not being set up properly. The time taken to repair aids meant people were left without their aid.

3. Technical support – adequate maintenance and support services were seen as essential for effective use of high tech aids.

4. Voice/language – families where English was not the first language reported that they found it difficult to use the aid at home. The speaking voice was hard to understand.

5. Making decisions – it is important to include individuals and families in decision making.

6. Time generating a message – there was a wish for aids to be quicker to use.

7. Family perceptions and support – parents needed to develop a lot of knowledge to configure the aid and teach the individual to use it. Parents were generally positive about the benefits of using an aid but some were not confident about new technology.

8. Communication partners – it is important for people to know how to communicate with someone who uses a communication aid. People who use communication aids may need to develop social knowledge to help them interact with unfamiliar people.

9. Service provision – people reported that there was a lack of local specialist services, especially for adults.

10. Staff training – all staff working with an individual need to have skills and knowledge. Many staff reported that they had received little training. Team-working and collaboration by staff, and a positive attitude to technology were seen to be important for the individual to use a communication aid successfully.