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Presented by Bitte Rydeman & Per-Olof Hedvall at ISAAC 2008, Montreal.

## Who's in control? AAC seen through the FACE tool.

In the autumn of 2006 Peter Anderberg defended his thesis, *FACE – Disabled People, Technology and Internet* (Anderberg, 2006). The tool, FACE, is a way to describe how the *functioning* in a human-technology system is affected by three factors: *attitude*, *control* and *enabling*. Anderberg's theoretical model is that of disability studies, with a social model and independent living perspective, and with strong influences from rehabilitation engineering and design. He is also speaking from personal experience with significant physical limitations due to a muscle disease.

Professionals within the assistive technology and AAC fields have much to learn from people who use AAC, and also from other people who share similar experiences through living with a disability. In order to understand the affected person we need to take her perspective, and FACE is meant to be a tool that enables this (Anderberg, 2006). By viewing the individual as situated (Suchman, 2007), Anderberg provides us with three factors, attitude, control and enabling, that individually and together influence the function.

*Attitude* concerns how the function is perceived, framed and socially constructed by others and by oneself in the context where it is used, i.e., to what extent is the function free from or affected by disablist and discrimination attitudes? Attitude is connected to the social model perspectives.

*Control* focuses the extent to which the user, the owner of the function, has the power and right to define and execute the function (its choice, development, execution and economy). Control aspects are closely connected to the independent living perspectives. It is necessary to clarify that this control must include the right to decline and refuse any use of assistive technology or function solutions that for some reason does not fit the needs of the individual user.

*Enabling* validates how well the constructed implementation of the design, its technology, economy, flexibility, physiology, etc., matches the individual's wish to perform the desired actions. Enabling is the traditional approach in rehabilitation technology and design (Anderberg, 2006, p. 36).

When the function depends on attitudes, control and enabling, the person who uses AAC automatically takes the central position. FACE can in that way be seen as a way to shed light on the field of AAC from the standpoint of the AAC user.

The field of AAC has for a long time focused on the traditional approach of enabling. That is what Hedvall, Rydeman & Anderberg (2007) found when they looked at all the abstracts in AAC Journal from 1985 to 2007. The other aspects, attitude and control, were there as well, but to a much lesser degree.

We think it is time to test the FACE tool and see what happens when we consider all three aspects, attitude, control and enabling, and will do this by using examples from a project that we currently work in. In the project we are working together with four young adults with Cerebral Palsy who use SGD:s as well as low tech AAC solutions, like bliss charts and light pointers. They have been provided with an activity based vocabulary, targeted at the activity

“shopping”, as an addition to their existing computer based system. When we interviewed them about their previous experience with shopping, we found that thinking about attitude, control and enabling helped us discover important things.



*Figure 1. A model of how attitude, control and enabling interact with important aspects of AAC use.*

A common complaint from the AAC users was that sales clerks usually didn't direct their speech to them but to their assistants. They also didn't see themselves as people who shop independently, but, interestingly enough, they still felt that they were in control of the situation. They decided what to buy and they moved independently in the shops with their electric wheelchairs. But at the counter their assistants took over.

In the project, we hope that a utterance-based vocabulary that we have supplied the users with, will prove to be enabling, and help the users one step closer towards independence. One way to work towards that goal is to make sure that every utterance is in line with the user's preferences. When working through the vocabulary together with the users, we have discovered how difficult it is for them to manage their own vocabulary. Looking through the "FACE spectacles" we believe that the attitudes of the creators of the software play an important role here. They have not seen the end users of the communication software as people who need access to the settings or who should be able to enter new items into the vocabulary. And for some users, it wouldn't have mattered how accessible the software was, they wouldn't be able to do anything with it anyhow. But in our project we have one user in particular who is very keen to adapt his Mind Express™ application to look the way he wants, and is able to do a lot of adaptations by using his head mouse system. But if he had been using switches instead of a head mouse, or if he his vision had been less accurate, this had not been possible. As we see it, the *attitudes* of the designers, programmers etc. is reflected in the

way the software *enables* users to *control* their own vocabulary by being able to manage the software.

Another example: At the moment an individual who uses a SGD enters into a conversation with another person, the situated function depends on many things. It depends on the enabling features of the SGD and its speech synthesis, the attitudes of the communication partner and of the user herself. It also depends on the power the user has to initiate and control the interaction, ask follow-up questions and guide the interaction in a direction that supports her interests. This power is in itself is a function of attitudes and a number of possibly enabling features in the situation and in the assistive technology.

In the presentation we will show numerous video clips viewing aspects of attitudes, control or enabling. At the end we will relate our experience from using the FACE tool to our professional work as clinicians and researchers, and how this has affected us and what we do.

#### References

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