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journal: STL-QPSR
volume: 31
number: 4
year: 1990
pages: 053-054

http://www.speech.kth.se/qpsr
EXPERIENCES WITH MULTI-TALK IN SWEDEN SINCE 1987*

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The first portable speech output communication aid (VOCA) with Swedish has been available since 1986. The device, called Multi-Talk, was based on the development of text-to-speech synthesizers at our department. The synthesizer module used in it can be equipped with several languages. Text can be input via a standard keyboard of a built-in Epson HX-20 microcomputer which is programmed to make the handling easy for the user and to increase the speed of communication. An evaluation project was carried out with five devices purchased by the Swedish Institute for the Handicapped. It showed the usefulness of the speech output, and the results were very encouraging. The evaluation project has been described earlier by Galyas (1987). As a result of this study, the Multi-Talk was approved by the Institute for the Handicapped. After completion of the evaluation project, these devices could be borrowed for shorter or longer periods for trying out with clients. We have collected information from the experiments continuously. There was a great variation of needs and we have gained new knowledge about the value of synthetic speech for non-vocal people and the limitations of the specific system.

There were over 30 persons who participated in the evaluation process. The majority were school children. The most common disabilities were CP and mental retardation. Some of the clients had ALS and MS, others aphasia. Visual impairment was present in two cases.

Fig. 1. The Multi-Talk.

*This paper was presented at the European Conference on the Advancement of Rehabilitation Technology, Nov. 5-8, 1990, Maastricht, The Netherlands
About ten persons used Multi-Talk merely as a communication aid. In this group, we observed some problems that prevented successful use of the aid though the prerequisites seem to be favourable. There is still a certain aversion to synthetic speech among many people. Speaking aids are still rather unknown in Sweden, and sometimes the persons around the user showed a negative attitude towards the synthetic speech and would not make an effort to understand the speech or to get used to the voice. This has taught us that we have to pay more attention to issues concerning information and education in the future.

The Multi-Talk was utilized as a pedagogical aid in about half of the cases. Several programs were developed to train phonological awareness and support writing with spoken feedback. A communication program was available in the device at the same time. The experiments served as an introduction to working with this method was which was found successful in almost all cases. Several of the schools acquired personal computers to run these programs on. The advantage of the large screen with colour graphics and the larger capacity was considered to be more important than the portability aspect of the Multi-Talk.

We can summarize our findings in the following way: A VOCA should have a very small size and low weight to be practical enough to be used. There are, however, situations in which the size of the system is less critical, in a job or a school situation, for example. A larger size can be acceptable if the device can also fulfil other needs such as word processing, educational training, or professional use of a computer. Such a system can still be portable, as small size computers with the full capacity of a stationary PC have become available. We plan to study the communication needs in the above applications of computers for non-vocal persons and to develop a memory-resident communication program with speech output.

Acknowledgments
This work was supported by a grant from the Swedish Board for Technical Development.

References