Visual and tactile communication

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journal: STL-QPSR
volume: 1
number: 1
year: 1960
pages: 026-027

http://www.speech.kth.se/qpsr
up for general studies. The frequency division is performed by means of a rotating head tape-recorder especially constructed for this purpose. The project is still in an initial stage.

c. The effect of low-pass filtering
The effect of low-pass filtering on the intelligibility of isolated test words of various consonant-vowel combinations is being investigated. Low-pass filters of 500, 750, 1000, and 1500 c/s cutoff and steeply attenuation characteristics are being used. Of specific interest is the performance of subjects severely hard of hearing compared with the performance of subjects with normal hearing. All subjects were well trained in similar listening tests.

B. Johansson, E. Wedenberg


(2) Visual and tactile communication

A new instrumentation for visual and tactile speech transmission is under construction. It is intended to serve as a prototype for Swedish schools for the deaf. The instrument comprises a 20-channel spectrum analyzer with filters arranged on a real scale and an associated frequency-intensity display unit in the form of 20 glow discharge tubes in which the length of the glow is modulated by the driving current. These tubes have been developed especially for this purpose.*

*By T. Hannaas, Division of Electronics, R.I.T.
A set of 6 complete tactile receptor units are to be included, each comprising 10 hearing aid bone-conduction receivers, one for each finger of a pupil. These receivers all have the same carrier but are amplitude-modulated by the outputs of the band-pass filters. Possible improvements in the stimuli presentation are investigated. Experience from the earlier model LUCIA indicate that the visual device is potentially useful for speech correction and that the tactile unit provides a valuable supplement to lip-reading but is by no means a full substitute for hearing. (1)

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C. SYSTEMATIC STUDY OF HEARING AIDS

Comparative investigation of hearing aids under varying environment conditions

Normally about 75 to 80% of the hard of hearing will be satisfied with their hearing aids. Different kinds of complaints will occur for the others. An investigation has been started to analyze the complaints. 12 different hearing aids with different control settings have been tested using PB-lists for normal listeners in quiet and in different types of noise at the average speech level.

The investigation is now continued with a series of pathological cases of different degrees.

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