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Focus on IFA's work

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Call centres: selection of suitable headsets

Problem

Headsets are the most important item of equipment employed in call centres. Their speech reproduction quality and the ambient noise perceptible to the wearer determine the ease by which callers can be understood. These characteristics are not described adequately by technical data; the subjective acoustics and the wearer comfort are further important parameters. The acoustic and ergonomic properties of the headsets thus contribute decisively to the performance and well-being of the call centre staff.

Call centre operators and employees require general criteria for the selection of suitable headsets. A list of selection criteria is intended to reconcile the personal needs of individual members of staff better to the logistic and economic criteria of operators.

Activities

In cooperation with the German Social Accident Insurance Institution for the administrative sector (VBG), seven call centres in a number of sectors were selected. A total of 50 staff in these call centres then tested three different types of headset during normal working activity and evaluated them by means of a standardised questionnaire.

Two of the test models were binaural (two-ear) headsets: a "slim" model with small leather ear cushions, and a more compact model with foam ear cushions. The third model was a monaural (single-ear), over-the-head headset. The influences of ambient noise were recorded during typical work activity.

The proximity of workplaces to each other determines the acoustic environment in call centres

Results and Application

A total of 137 questionnaires were evaluated. Wearer comfort, adjustment facilities and acoustic properties were evaluated on a scale of 1 (best) to 5 (worst). The average marks awarded for all three headsets lay between 2 and 3. Individual marks varied however over the range of possible marks. It was not uncommon for a headset to be awarded the top mark by one tester and the lowest mark by another.

The monaural headset was generally rated somewhat less highly for its acoustic properties. In noisier environments, caused by rooms with a high

occupancy or unfavourable acoustic conditions, the influence of interference noise on the free ear was a more frequent complaint.

The results show that the perfect headset does not exist. The guide to selection based upon the results of this project thus contains the recommendation that personnel be given a free choice of a range of headsets, for example with different wear arrangements and ear cushions (size and type). Such a choice can often be provided within the product range of a single manufacturer and even within one product line. Only 16% of the participants in this study were in fact free to choose the product; the extent of their choice was not surveyed, however. The list of selection criteria will also consider many of the comments made by employees on the questionnaire, since precisely these comments provide a close reflection of day-to-day practice.

Area of Application

Call-centre operators, headset manufacturers

Additional Information

- Working environment and ergonomics – selection guide for headsets. CCall Report 4. Publisher: Verwaltungs-Berufsgenossenschaft, Hamburg 2001

- Call-Center: Auswahl geeigneter Headsets. BIA-Report 1/2003. Publisher: Hauptverband der gewerblichen Berufsgenossenschaften (HVBG), Sankt Augustin 2003

Expert Assistance

IFA, Division 4: Ergonomics – Physical environmental factors

Literature Requests

IFA, Central Division

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