

MAKATON VOCABULARY DEVELOPMENT PROJECT
Research Information Service
April 1981 Volume 1 Issue 8

**COMMUNICATION AIDS:- ARTICLES,
INFORMATION AND RESOURCE CENTRES**

Compiled and Written by Nicola Grove, MSc, LCST
Edited by Margaret Walker. MSc. LCST

Published by
Makaton Vocabulary Development Project
© 1981 Margaret Walker for MVDP

COMMUNICATION AIDS:- ARTICLES, INFORMATION AND RESOURCE CENTRES

INTRODUCTION

Whereas the use of communication aids does not come directly within the province of the Makaton Vocabulary Development Project, many people using Makaton are also involved with the technology of communication. This is a very rapidly expanding field, and a number of developments are taking place simultaneously, both here and abroad. In this Issue, therefore, not only are articles relating to communication aids reviewed, but a list of information centres, and current newsletters is included.

My grateful acknowledgements for all the help I received in compiling this issue, to:
Pam Enderby, Frenchay Hospital;
Caroline Reed, RADAR;
Mary Plackett, RNID;
Peter Deakin, Technology & Disability -Group;
Marian Lane, Disabled Living Foundation.

NOTATIONS USED THROUGHOUT ISSUES

* Papers/Books available for reference from:
Royal National Institute for the Deaf, Library, 105 Gower Street, London WC1E 6AH
Tel: 01-387-8033

° Papers/Books available for reference from:
Mr. Roger Tallis,
BIMH Information & Resource Centre,
Wolverhampton Road, Kidderminster, Worcs.
Tel: Kidderminster 850251

CONTENTS

	<u>Page</u>
REVIEWS OF PUBLISHED PAPERS	1
INFORMATION CENTRES -	
United Kingdom	8
United States of America	12
Sweden	13
WORKSHOPS, COURSES, EXHIBITIONS	13
JOURNALS -	
United Kingdom	14
United States of America	15

REVIEWS OF PUBLISHED PAPERS

° Anderson, J.D. (1980)

Spatial arrangement of stimuli and the construction of communication boards for the physically handicapped
Mental Retardation, 18, 1, Feb.1980, 41-42

Summary

This paper lists some practical considerations to be taken into account when designing communication boards to suit individual needs - e.g., status of vision, voluntary arm movement, spatial arrangement of communication board.

It also includes suggestions for how to assess range of arm movement, and a frequency table for the alphabet. A useful short paper.

* Beukelman, D.R. & Yorkston, K.M. (1980)

Nonvocal communication performance evaluation
Archiv. Phys. Med. Rehabil. 61, June 1980, 272-275

Cross-Reference

MVDP Research Information Service: ACQUIRED COMMUNICATION DISORDERS IN ADULTS AND NONSPEECH SYSTEMS : DYSARTHRIA

Summary

Two case studies are presented illustrating how the use of communication aids (Canon communicator, and a scanning system) by two severely dysarthric clients was monitored and adapted for the home setting. Samples of conversation were obtained to identify how effective communication was with different partners, and different messages, and different settings.

Clinical Applications

A pragmatic approach to the monitoring of communication, which investigates aspects of the interaction, as well as the client's output which is obviously useful. However, the eight hour samples which the authors used in the research are clearly not a practical proposition for most therapists. The authors, alas, do not take this into account, and it is a pity they have not explored alternatives, such as diary keeping by relatives; and detailed interviews.

* Braida, L.D. et al (1979)

Tactile communication of speech
Research Lab. of Electronics (MIT) Progress Report No.121, 1979 XXIV
(Communications Biophysics)

Cross-Reference

MVDP Research Information Service: SUPPLEMENT OF MULTIPLE HANDICAP AND NONSPEECH SYSTEMS OF COMMUNICATION: DEAF/BLIND

Summary

A brief preliminary report on a project evaluating two basic types of tactile communication systems, one based on spectral displays, and the other based on tactile

feedback of hand feeling the articulation patterns of the mouth (Tadoma method). Speech reception performance of experienced Tadoma users was superior to performance with artificial speech displays - the research programme attempts to evaluate why this is so.

Enderby, P. & Hamilton, G. (1981)

Clinical trials for communication aids

International J. of Rehabilitation Research, July 1981

Cross-Reference

MVDP Research Information Service: ACQUIRED COMMUNICATION DISORDERS IN ADULTS AND NONSPEECH SYSTEMS OF COMMUNICATION

Summary

Reports on clinical trials of SPLINK, with 127 clients, age range 7-82 years. Aetiologies included CVA, motor neurone disease, cerebral palsy, head injury, profoundly deaf, excision surgery. Speech and language handicaps were mainly dysarthria and dyspraxia/dysphasia, with a few aphonics.

Results varied enormously depending on individual clients, families and therapists' reactions to the aid: it is necessary to experiment with each client to determine whether or not SPLINK would be appropriate. Some of the factors affecting use were as follows:

1. The skill, experience and attitude of the therapist emerges as one of the major determinants of success or failure with SPLINK. She must select clients appropriately (those with good eyesight, a degree of accuracy with pointing, and a reading age of about eight, being three criteria); set realistic goals; and develop techniques to gradually extend use of the board - such as masking out some words when the initial display proves confusing, and encouraging practice of set phrases to familiarise the user before he attempts spontaneous conversation. The need for Speech Therapists to learn about the application of communication aids is stressed throughout the paper.
2. Clients who used SPLINK for two weeks or more greatly increased their speeds. The average speed of practised phrases was 8.8 words per minute; spontaneous communication 6.4 words per minute. Slowness, and the resultant frustration, was often reason for the client's rejecting the aid.
3. Teaching clients to improve visual scanning is as important as aiding physical accessing.
4. Vocalisation often improved - this was especially noticeable with dyspraxic clients.

The authors argue strongly for all aids to undergo clinical trials. As a result of the trials with SPLINK, modifications are being introduced which should facilitate its use.

Clinical Applications

This is a valuable paper, useful as background reading for all Speech Therapists, and for anyone involved in using communication aids - many of the conclusions apply generally, and are not specific to SPLINK.

Hagan, C. (1978)

Assistive communication systems for the anarthric and severe dysarthric patient: a rationale for their use and criteria for their selection

Scand. J. Rehab. Med. 10, 163-168, 1978

Cross-Reference

MVDP Research Information Service: ACQUIRED COMMUNUCATION DISORDERS IN ADULTS AND NONSPEECH SYSTEMS OF COMMUNICATION

Summary

A rationale for the use of nonvocal communication systems by anarthric and severely dysarthric patients is presented. Criteria for selecting nonvocal systems are discussed, including:

1. Patient variables

- a) ... "ability to physically manipulate a device in relationship to the needs and capabilities of the unsophisticated receiver. Latency and accuracy of motor response are the most critical variables. In our experience a communication device is functional if it allows the patient to generate a completed sentence in three minutes or less with no more than five corrected errors. The average receiver will not try to communicate with the patient beyond these limits."
- b) intellectual and cognitive capabilities - including attention, retention, long term memory - "a communication device cannot be considered to be functional if it represents a continual new learning task..."
- c) language abilities - "the patient should not have to learn language and the nonvocal communication system simultaneously".
- d) emotional - motivational status - "we cannot assume that the motorically impaired desire some form of communication simply because they experience profound difficulties in communication".
- e) level of functional communication, and degree of need - "it is often not enough to present a patient with a system that does nothing more than communicate the same information on the same level as his existing system but in a different way..."

2. Nonvocal communication system variables - size, number of components and mechanical complexity of the system.

Clinical Applications

A useful paper outlining very practical considerations for the training of communication skills with all handicapped clients.

* Harris Vanderheiden, D. (1976)

Field evaluation of the Auto-Com

In Vanderheiden & Grilley (Eds) Nonvocal communication techniques and aids for the severely physically handicapped

University Park Press, Baltimore, 1976

Summary

Describes the Auto-Com, its application and the positive results of its use, with primarily EMR (Educable Mentally Retarded) and normally intelligent children, although field trials included those with mental handicap there are unfortunately no details of how use of the Auto-Com might be adapted for this population.

* Harris, D. & Vanderheiden, G.C. (1980)

Augmentative communication techniques

In Schiefelbusch, R.L. (Ed) Nonspeech language and communication analysis and intervention

University Park Press, Baltimore, ch.12, pp.260-301

Summary

This paper presents a partial survey of encoding, scanning, and direct selection aids, and issues related to implementation. Mostly the same information as in Vanderheiden (1976) and Vanderheiden, Harris Vanderheiden (1976) this Issue. Each paper covers a slightly different list of commercial aids.

Choose one of these papers to read as an introduction, and then read Silverman Communication for the Speechless (see this Issue) to gain a real understanding of the technology of communication aids.

* McDonald, E.T. (1976)

Design and application of communication boards

In Vanderheiden, G.C. & Grilley, K. (Eds) 1976

Nonvocal communication techniques and aids for the severely physically handicapped

University Park Press, Baltimore, pp.105-120

* McDonald, E.T. & Schultz, A.R. (1973)

Communication boards for cerebral palsied children

J. Speech & Hearing Disorders, 38, 1973, 73-88

Summary

Two useful papers offering practical suggestions for the design of communication boards, and assessment of clients' physical capabilities. Discussion of content is concentrated on pictures and words, with no mention of symbols.

* Perry, A.R., Gawel, M., & Rose, F.C. (1981)

Communication aids in patients with motor neurone disease

BMJ, 282, 1690-1692

Cross-Reference

MVDP Research Information Service: ACQUIRED COMMUNICATION DISORDERS IN ADULTS AND NONSPEECH SYSTEMS OF COMMUNICATION

Summary

This study is aimed at determining the main factors responsible for the speech and communication problems in motor neurone disease. Sixteen clients had their speech assessed on the Frenchay dysarthria assessment. The four aids available were SPLINK, Canon Communicator, Lightwriter, and Edu-Comm. It was not possible to predict suitability of aid from the dysarthria assessment - it was found essential to offer a choice of aids to the client and give him/her the opportunity to practice, in order to determine which aid he/she should use.

Reid, D.H. & Hurlbut, B. (1977)

Teaching nonvocal communication skills to multihandicapped retarded adults

J. Applied Behav. Analysis, 10, 1977, 591-603

See: MVDP Research Information Service, Vol. 1, No.7 MULTIPLE HANDICAP, NONSPEECH SYSTEMS

* Silverman F.H. (1980)

Communication for the speechless

Prentice Hall, 1980

Cross-Reference

MVDP Research Information Service, Vol.1, No.2 REVIEWS, SURVEYS AND BIBLIOGRAPHIES (1981 Supplement)

MVDP Research Information Service: TEACHING METHODS ASSESSMENTS

Summary

This book offers a practical guide to the use of nonspeech systems in the USA only. It opens with a description of each system, classified as gestural, gestural-assisted, and neuro-assisted. Silverman is stronger on the assisted modes than on sign language and systems as he does not distinguish adequately between American Sign Language and signed speech - but there is a very good overview of the symbol and computer based systems and the technical aids involved. The final section of the book considers clinical considerations, such as selection of mode(s); intervention strategies - how to gain acceptance for a system, generate motivation and increase awareness of the need for communication.

There is a tendency for the book to be geared mainly towards the more intelligent, physically handicapped client - in the section on assessment of communication, for example, there is no mention of the preverbal cognitive skills which must be evaluated for severely retarded or autistic clients. Instead, Silverman concentrates, usefully, on motoric functioning, visuo-spatial, kinaesthetic abilities. There is an excellent systematic assessment of gestures involved in communication, with a table of the switching devices on aids which can be activated by one or other of the gestures involved.

There are very useful appendices, including bibliographies relevant to each mode, and construction details for inexpensive displays and components. Unfortunately, the details of sources for materials apply to the USA only, hopefully someone will be writing a similar book for the United Kingdom.

Silverman, H., McNaughton, S. & Kates, B. (1978)

The Handbook of Blissymbols for Instructors, Users, Parents and Administrators

Blissymbolics Communication Institute, Toronto

See: MVDP Research Information Service, Vol.1, No.7 MULTIPLE HANDICAP, NONSPEECH SYSTEMS

Appendix to Part I contains a list of communication aids.

* Vanderheiden, G.C. (1976)

Providing the child with a means to indicate

In Vanderheiden & Grilley (Eds) 1976

Nonvocal communication techniques and aids with the severely physically handicapped, pp.20-76

Summary

Provides an overview of the types of aid available on the market. Scanning, encoding and direct selection devices are compared and contrasted.

Much of this information is provided by Silverman (1980) in his section on gestural and neuro-assisted modes of communication. Vanderheiden gives more details of specific aids, whereas Silverman is more helpful on the technical explanations of switching devices, displays, and control electronics, and also offers some practical suggestions on selecting a system. See Harris & Vanderheiden (1980); Vanderheiden & Harris Vanderheiden (1976), this Issue for similar papers.

Vanderheiden, G.C. (Ed) (1978)

Nonvocal communication resource book

University Park Press, Baltimore, 1978

Summary

Summarises and illustrates communication and writing aids now available in the USA. It is designed in looseleaf form for updating and expansion. Registration cards are

included to enable purchasers to receive future additions and revisions from the Trace Center. It has sections on communication aids - boards, charts and laptrays, writing aids, headsticks and pointers and computer based systems.

Although many of the aids are from the USA, it does cover those available in other countries. Write for information to:

Reprint Service,
Trace Center,
314 Waisman Center,
1500 Highland Avenue, Madison Wisconsin 53706
U.S.A.

Price \$12.50 (plus \$1.50 postage outside USA).

* Vanderheiden, G.C. & Grilley, K. (Eds) (1976)

Nonvocal communication techniques and aids for the severely physically handicapped
University Park Press, Baltimore, 1976

Summary

Edited proceedings of a 1975 Trace Center National Workshop Series, focusing on symbol systems and communication aids. A collection of useful papers, some of which are reviewed elsewhere in these issues.

Vanderheiden, G.C. & Harris Vanderheiden, D. (1976)

Communication techniques and aids for the nonvocal severely handicapped
In Lloyd, L.L. (Ed) Communication Assessment and Intervention Strategies
University Park Press, Baltimore, 1976, ch.15, 607-652

Summary

Presents much of the same information as Vanderheiden (1976) in a more concise form, and combined with a discussion of the symbol systems which can be used in conjunction with communication aids. There is a bibliography of papers relating to the subject, mainly American.

INFORMATION CENTRES

UNITED KINGDOM

IPCAS

This summary is reprinted with the kind permission of Caroline Reed.

International Project on Communication Aids for the Speech-Impaired

IPCAS is a programme of international co-operation in the field of communication aids for the speech impaired. Its aims are:

- To assess and evaluate the need for communication aids;
- To gather information on research in each member country and circulate this knowledge to other members;
- To stimulate research and development programmes in the field of communication aids for the speech impaired;
- To promote exchange of information and workers between the countries involved;
- To promote projects which produce suitable aids and services for the speech impaired;
- To provide a forum for discussion on communication aids for the speech impaired.

The project started in Sweden as a national initiative to co-ordinate work in progress and to bring together those working the field often in isolation and in an area which was comparatively small but it was of great importance.

The Handikappinstitutet in Stockholm where the work had been based, produced a directory of suitable aids and a document on further research in 1978. Using those as a basis, negotiations started in June 1978 for the formation of an international group, and the first meeting to formulate plans was held in June 1979.

The full project came into being in October 1979. Within the basic aims of the project the first need must be to assess and evaluate the size of the problem and the parameters of need in a field which is complex and where work is still in its early stages.

There is an international secretariat in London, England, with a group of international advisers and each participating country has its own national co-ordinator and national advisory body. The project plans to make its first progress report in June 1981.

Note: Mrs. Fay Thomson, from Makaton Vocabulary Development Project, is a member of the U.K. Project Team.

Participating Countries

Canada

Roy Loach

Canadian Rehabilitation Council for the Disabled,
Suite 2110, One Yonge Street, Toronto, Ontario, M5E 1E8

United Kingdom

George Wilson

The Royal Association for Disability and Rehabilitation
25 Mortimer Street
London W1N 8AB

Sweden

Jan-Ingvar Lindstrom

Swedish Institute for the Handicapped
Box 303, 161 26 Bromma, Sweden

United States of America

To be announced

Information from: Caroline Reed, Secretariat, IPCAS, 25 Mortimer Street, London W1N 8AB, England.

IPCAS are anxious that projects concerned with the development of communication aids should be centrally co-ordinated, to increase public awareness, if you know of any new project starting up, do inform them.

Assistive Communications Laboratory

It is proposed to incorporate this Laboratory in the Frenchay Hospital Speech Therapy Department. The aims are as follows:

- | | | |
|------------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>Clients</u> | : | examine needs, assess and treat, monitor use of communication aids |
| <u>Therapists</u> | : | train Speech Therapists in the selection and use of communication aids, and develop expertise on how best to introduce and train clients to use aids |
| <u>Resource Centre</u> | : | for demonstration training and trials, and to investigate the funding of aids |

Funding has been agreed for room and equipment, but not yet for staffing. The Rehabilitation and Medical Research Trust have been very generous with donations. It is hoped that the Laboratory will be functioning as a resource and information centre for a start, in September 1981.

Information from:
Mrs. P. Enderby
Chief Speech Therapist
Frenchay Hospital
Bristol BS16 1LE

ACTIVE

This is a voluntary group which encourages and supports a do-it-yourself approach to aids for disabled children and adults. Local groups are formed to work in association with technical departments in schools and colleges, and evening classes, to design and build aids. ACTIVE began by developing play aids, and modifications to existing toys for handicapped children, but has since widened its focus to include communication and education aids, suitable for adults as well as children (more information in College of Speech Therapists Bulletin, June 1981).

ACTIVE has now joined with the Toy Libraries Association, information from:
Hon. Secretary, ACTIVE,
Seabrook House, Wyltyotts Manor,
Darkes Lane, Potters Bar,
Herts EN6 2HL

DEARS

Disablement Electronic Aids Reference Service. Miss Townley, an information scientist and herself disabled, is organising an information exchange scheme concerned with electronic aids for the disabled. So far most information has come from commercial sources; clinicians and doctors especially, who know of specially designed or modified aids, are invited to write to her:

Miss H.M. Townley
117 Wickham Chase
West Wickham,
Kent BR4 OBQ

Chailey Heritage

There is a Rehabilitation Engineering Unit at Chailey Heritage, originally directed by Nigel Ring, which includes a service of personalised equipment for physically handicapped children, and the provision of communication aids. The Chailey Communicator, and a moulded wheelchair tray are presently available (details in Happy Talking, see MVDP Research Information Service, Vol.1, No.7). Chailey Heritage develops equipment related to Blissymbolics - Nigel Ring is Chairman of the Blissymbolics Communication Resource Centre.

Enquiries to:
Mr. Roy Nelham
Chailey Heritage
North Chailey
Lewes
Sussex BN8 4EF

Technology and Disability Group

This was set up to improve communication between people developing electronic devices for the handicapped and therapists working in the field. Produces Aids Communication and Electronics (see this Issue). The majority of the group are researchers in University Departments. Contact:

Peter Deakin
Project Co-Ordinator
Neath Hill Professional Workshop
17 Taylors Mews
Neath Hill
Milton Keynes, Bucks.

Disabled Living Foundation

Information service for the disabled. Leaflet 3A Communication.

This list gives details of some of the principal suppliers of equipment and information relating to communication aids. It also lists organisations concerned with communication for blind and partially sighted, deaf, speech handicapped. Available from:

Disabled Living Foundation
346 Kensington High Street
London W14 8NS

Aids For The Speech Impaired 1980

Lists aids to assist or replace speech. Available from:

Scientific and Technical Branch (STB 6C)
DHSS
14 Russell Square
London WC1B 5EP

College of Speech Therapists

The College of Speech Therapists has recently published a very useful and extremely comprehensive booklet which lists and explains all communication and teaching aids available when the booklet was written in the Summer 1980. It also gives a list of useful addresses. This publication is certainly to be recommended.

Available from:

The College of Speech Therapists
Harold Foster House
6 Lechmere Road
London NW2 5BU
Tel: 01-459-8521

Resource Centre at Central School

Kay Mogford, at the Central School of Speech and Drama, is developing a resource centre collecting and adapting therapeutic aids and toys, and information about them. Although actual use of the centre is restricted to students, she looks upon its development as a research project, which she will be writing up in the future, and would be happy to hear from anyone who has, or wants, relevant information. Contact:

Kay Mogford
The Central School of Speech and Drama
Embassy Theatre
64 Eton Avenue
Swiss Cottage
London NW3 3HY
Tel: 01-722-8183

UNITED STATES OF AMERICA

Trace Research and Development Center for the severely communicatively handicapped (Director, Gregg Vanderheiden).

The principal aim of the Centre is to encourage and co-ordinate the exchange of information and resources between those working in research and development of communication aids, and those working with the speech impaired on a day-to-day basis in hospitals, schools, the home.

The Centre runs two-day Workshops, covering techniques, aids and procedures related to nonvocal communication programmes. It also publishes the Nonvocal Communication Resource Book (see for details, Vanderheiden (Ed) 1978, this Issue) and has developed a microcomputer based electronic lapboard communication aid - the Auto-Comm (see Harris Vanderheiden (1976) this Issue for details).

The Trace Centre is also involved with the Artificial Language Laboratory, in the publication of Communication Outlook (see this Issue).

Artificial Language Laboratory

This is a research centre at Michigan State University, involved in basic and applied research in the field of computer processing and formal linguistic structures. It was one of the first to develop software packages for educational and communication purposes.

It runs a series of Communication Enhancement programmes with schools in the area to develop, evaluate and field test communication systems. With the Trace Centre, it publishes Communication Outlook (see this Issue). Contact:

Artificial Language Laboratory
Computer Science Dept.
Michigan State University
East Lansing MI 48824
U.S.A.

SWEDEN

The Swedish Institute for the Handicapped is a central body in Sweden responsible for improving aids and other facilities for disabled people. It is running projects to evaluate electronic communication boards using scanning techniques, to educate personnel working with speech impaired in the use of nonvocal communication techniques, and to develop Blissymbolics.

A system for computerised literature retrieval includes a file on technical aids for the speech impaired (called "Taldoc"), which is in its provisional stage. A lot of work is done in co-operation with IPCAS.

(Further details of projects in Sweden are described in an article by Margita Lundman in the Winter 1980 edition of CONTACT - see Journals this Issue.)

WORKSHOPS, COURSES AND EXHIBITIONS

NAIDEX 81 Conference and Exhibition 21st-24th October, 1981 (National Aids for the Disabled)

Workshop Report

(Reprinted by kind permission of Pam Enderby, Frenchay Hospital and Caroline Reed, Secretariat IPCAS.)

Developing Communication in Nonvocal Severely Physically Handicapped - A Workshop held on 31st March and 1st April at Brighton

This Workshop taught the participants that with imagination, initiative and interest, they can help the most severely physically handicapped person to communicate more effectively.

The two Lecturers from the United States of America, Gregg Vanderheiden and Deborah Harris, constantly related the theory to practice, and it was refreshingly obvious that they had had extensive experience in the field. They encouraged us to develop ideas and strategies in handling our patients, rather than prescribing specific

ways of doing things. This was particularly helpful as discussing textbook cases very rarely helps one in the ordinary clinic.

It was emphasised that developing the system of communication by providing a client with a repertoire of expressive modes, was often essential to augment residual speech in these clients.

The participants were encouraged to analyse the necessary skills and strategies needed for effective interaction and to achieve this by balancing the user needs and the environmental constraints.

The American pace of the Course was most impressive and I am sure that all of us felt very stretched by the evening. Our hearts dropped as we were asked to go into the evening session which was to end at 9.30 pm. However, it need not have done as this was a very practical demonstration, involving the lecturer using his woodwork skills to show how to make a communication board that would be versatile and durable. Following this, it was not hard to keep awake while we were being taught the basic principles of the physics of electricity! We had to wire up our own electrical circuit boards and the sense of achievement when we achieved to get the rotary arm to rotate at varying speeds or the light bulb to vary its intensity was tremendous! A refreshing new way of looking at a very complex and challenging area.

It is hoped that another Workshop will be organised, the next time Gregg Vanderheiden visits England with time to spare. Advance notice will be published in "Therapy" and College of Speech Therapists "Bulletin".

JOURNALS

UNITED KINGDOM

Aids Communication and Electronics

The quarterly newsletter of the Technology and Disability Group. It aims to act as a clearing house for up-to-date information, and as a forum for critical discussion on the effectiveness, design and use of aids. It provides an index of purpose built commercial communication aids and generally available electronic devices. The first issue concentrates on developments in microelectronics. News will be given of research projects, events, courses, etc.

Contributions to the newsletter are requested - it clearly will depend for its success on the amount of information it receives. It should provide a valuable and much needed service.

The third issue, due out in the Autumn, will be on Special Education:

ACE
Group for Technology and Disability
Neath Hill Professional Workshop
17 Taylors Mews
Neath Hill
Milton Keynes, Bucks

£2.50 for first three issues (reference copies are kept at RNID).

CONTACT

This is the quarterly magazine of RADAR. It covers a wide range of items relevant to all types of disability, and often includes articles on communication aids. Available from:

RADAR
25 Mortimer Street London W1N 8AB

UNITED STATES OF AMERICA

Communication Outlook

Quarterly publication of the International Action Group for Communication Enhancement (produced by Trace Centre and the Artificial Language Laboratory). It is an international newsletter which provides a forum for individuals interested in the application of technology to the needs of persons with communication handicaps due to neurological or neuromuscular conditions. (Reference copies available at RNID.)

Membership to the group includes subscription to the newsletter. Cheques for \$15 (outside U.S.A.) made payable to: MSU, Agent for Communication Outlook and sent to:

Communication Outlook
Artificial Language Laboratory
Computer Science Dept.
Michigan State University
East Lansing MI 48824
U.S.A.

Anyone wishing to contribute to the magazine should contact:
Caroline Reed, European Correspondent
Communication Outlook
IPCAS
25 Mortimer Street
London W1N 8AB