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ABSTRACT

The paper describes the Makaton Vocabulary as an alternative communication mode for children and adults with communication and language difficulties. The language program comprises the following components: a core vocabulary based on concepts/items needed to express essential needs and experiences; the use of signs and/or symbols always associated with speech; and a specific structured set of teaching procedures. The core vocabulary is organized into eight sequential stages of increasing complexity and communication priority and can be personalized by elimination of irrelevant items and addition of other concepts. The teaching procedure has six steps: (1) setting up acts of communication; (2) establishing a learning pattern; (3) using vocabulary in the context of real objects and events; (4) teaching a range of functions; (5) teaching new concepts; and (6) teaching understanding and use of phrases. The Makaton Vocabulary is widely used in the United Kingdom. Makaton resource centers outside the United Kingdom are listed, and a bibliography of 31 items provided. (DB)

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THE MAKATON VOCABULARY - USES AND EFFECTIVENESS

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The Makaton Vocabulary was designed by the author in an attempt to encourage functional communication and interactive behaviour in children and adults with communication and language difficulties.

The philosophy underlying it is that communication occurs in an interactive, interpersonal context and that attempts to develop communication skills in people who have communication and learning difficulties, should take this into account.

The author would suggest that:-

SUCCESSFUL COMMUNICATIVE INTERACTION requires:

1. a common language - based on a referential vocabulary constructed around the shared daily living experiences and needs of the interactors;
2. knowledge and the ability to use the same method(s) of communication;
3. a sensitive and flexible approach to using these combined features in order to accommodate:
 - (a) the specific learning difficulties of the students e.g. poor memory and concentration; limited retention and retrieval skills; expressive production problems;
 - (b) the situational demands made on all interactive partners by the environment, e.g. transfer of information and skills from one person to another, shortages of manpower and time; whether the environment is conducive or not, to the type of communication being used;
4. that the interaction itself is rewarding and satisfactory.

The goals in using a Makaton Programme are initially to establish basic interactive communication and then, if the ability is there, to progress onto a fuller system of communication, which hopefully will be speech or a comprehensive sign and/or symbol system. Makaton should be seen as a facilitator to achieve these ends and not an end in itself.

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What is the Makaton Vocabulary? What contribution can it make?

It is a language programme comprising:-

- a core vocabulary or lexicon;
- taught with signs and/or symbols and always with speech;
- using specific structured teaching procedures.

THE CORE VOCABULARY

The principle of using a nucleus or core vocabulary follows an approach which is known and often used in second language teaching by teachers of foreign languages. A small vocabulary of concepts/items needed to express essential needs and experiences is taught to initiate immediate functional and purposeful interactive communication. The Makaton Core Vocabulary was designed to provide exactly this. It is seen as a starting point for developing language and not as a total corpus.

It was originally designed in the early 1970s for a group of deaf adults, with mental handicap, living in an Institution and for their carers, peers and instructors. Walker (1977; 1978). Both groups were unable to communicate about their basic needs or shared daily living experiences.

The first selection of the Vocabulary was made for them between 1970 and 1972. It was derived from monitoring and collecting samples of communicative interactions between carers, instructors, peers and the residents and also by recording situations of communication breakdown, where the lack of facility to communicate seemed to have been the cause. These latter negative experiences and discussions about them with carers, resulted in proposals being suggested for patterns of communication which might have been used to prevent the occurrences. From both these sources, i.e. monitoring interactions and discussions resulting from communication breakdown, lists of vocabulary under topics and functions were derived and then used on a trial basis. Over a period of 2 years the Vocabulary lists were gradually refined, so that only necessary and frequently used concepts were retained. Gradually the first Makaton Core Vocabulary emerged.

Having decided on the concepts that were needed they were then arranged in eight sequential stages of increasing complexity and communication priority. This resulted from experiences gained from the trial use, where it was found that concepts tended to cluster naturally into groups around functional activities and related topics. Also some of these were needed earlier on, to express basic needs and more frequently and consistently than others, and from this a sequential pattern emerged. There is also an additional stage - Stage 9 - which is

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an open-ended stage and represents a resource of additional concepts to be introduced into the core at the discretion of the "teacher" if any of the interactive partners requires them specifically.

In 1974 to 1976 the Makaton Vocabulary was introduced into schools for children with severe to moderate learning difficulties and additional problems, and the previous version of the Makaton Vocabulary, as used in the Institution, was introduced in a similar way on a trial basis. It was thought that large-scale adjustments might be necessary because of the differences in the environment and the environmental needs. Teachers, parents and others were asked to monitor:

- a) the use of the Vocabulary in relation to the needs of all interactors, i.e. children and adults;
- b) the position of the concepts in the stages;
- c) the use and need for Stage Nine additional concepts.

Gradually, over a two year period, additional, essential concepts were identified and added to the original core and others were added to the Resource Vocabulary of Stage Nine. It was surprising to find that the major part of the original Vocabulary was common to both community based environments and that of the institution and that the original version was not as specific to the adult population's needs as had previously been expected. Perhaps this is not so surprising, since children and adults, like all of us, have the same basic needs and experiences. For example, we all - sit, stand, eat, drink, look, come, go - in the same way and have similar experiences of - hot, cold, clean, dirty, trees, flowers, cats, dogs, etc.

From this trial period of the early version of the Makaton Vocabulary in schools and in the community it was revised and the current version - the 1976 edition - was produced.

Support for the Use of a Core Vocabulary

Other studies before and after the development of the Makaton Vocabulary showed the potential for using a core vocabulary. In an early study (Mein and O'Conner: 1960) of the vocabulary and language development of institutionalised adults with severe mental handicap, it was shown that these adults, as with non-handicapped people, developed both a small core vocabulary and a much larger, specialised vocabulary and that the size of the core in the adult study was approximately 300 different words. The size of the Makaton Vocabulary (1976 edition) is approximately 350 concepts.

A more recent study (Gillham: 1979) looked at the first 100 words produced by 14 children and found a total across subjects of 383 different words. Comparison of the Makaton Vocabulary with other published lexicons (Karlson and Lloyd: 1983; Beukelman, Yorkston, Poblete and Naranjo: 1984), indicates that 70 - 80% of items are held in common with the Makaton Vocabulary.

Using a core vocabulary, common to all who train, helps to establish consistency across environments so that, for example, if a child or staff member moves schools, or an adult moves from an institution to live in the community, there is continuity of use. It provides

a shared field of reference for all who use the system. It can also be used as a base line to determine which concepts are available to the student and which are lacking.

Disadvantages

The opposing view is that providing an apparently arbitrary core vocabulary may reduce the individualised process of lexical development (Wells: 1981; Wagner: 1985; Byler: 1985). The author is mindful of these views but would also introduce other considerations into the discussion.

Providing totally individualised vocabularies for students is possible when only a small number of people need augmentative input in any given environment, but if the use of these vocabularies is to occur in an interactive context then very large numbers of interactors will be involved and difficulties in remembering individualised differences are more likely to occur and lead to confusion. Furthermore, a realistic view needs to be considered when making demands on parents, teachers, instructors and others to train and achieve competence in using an augmentative system so that they can use it with children and adults with learning difficulties. Offering a small interactive vocabulary to initiate communication, increases the incentive to participate (Walker and Armfield: 1981). In the situation we currently face in Special Education, where it is estimated that one in three of the total population with severe learning difficulties may be candidates for sign or symbol programmes, (Leeming, Swann, Coupe and Mittler: 1979; Kiernan, Reid and Jones: 1982), a balance must clearly be negotiated between the requirements of the individual student and the need to provide some common ground.

The Makaton Vocabulary attempts to counteract the risk of arbitrary vocabulary selection in two ways:-

1. Personalising Vocabulary

The Core Vocabulary is taught to all interactive partners, but it is personalised for each student in teaching, by eliminating items which are irrelevant to his situation, and by assigning priority levels to each item selected. Concepts normally taught later in the Vocabulary may be brought in earlier if there is a particular individual need for them.

2. Using Additional Vocabulary

Inevitably, concepts will be needed in specific environments which are not included in the Core Vocabularies. To allow for this, the open-ended "Stage 9", described previously, provides a resource vocabulary from which caregivers can draw further concepts.

Design Features of the Makaton Stage Model

1. The stages allow for the gradual expansion of the child/adult's

experience in semantic fields. The first stage is related narrowly to basic needs and the structuring of interactions, then as the child acquires competence and confidence, his experience is broadened as his range of vocabulary increases through the subsequent stages.

2. Substantive and relational items are distributed throughout the Vocabulary in a way that allows individual items first to be used as single concepts for communication and then to be combined in short sentences. Phrase structure is therefore possible right from the beginning, from Stage 1, and this encourages lateral development of communication skills and not simply the acquisition of vocabulary items.

3. An analysis of the Makaton Vocabulary Stages 1 - 3, using Brown's definitions (Brown: 1973) and the categorisation of them on the basis of semantic roles has been described in a paper by Armfield (Armfield: 1982), and reveals a compatibility between them both, showing that principle features of child language acquisition are present in the early stages of Makaton. It is important when analysing the Vocabulary for child language acquisition features, to remember that each stage will also contain concepts for the adult interactor's use. For example, concepts for regulating or facilitating the child's communicative behaviour such as - look, come, go, here, there, good, bad, no, yet, what? where? etc.

4. Working gradually through the stages gives the "Teacher" an added advantage by restricting the amount of information processing given to the child/adult at this time. In the way it reduces the chances of overloading the learner, both the child/adult with communication difficulties and the non-handicapped partner. It also encourages learning through repetition of a small, familiar vocabulary selection.

5. The arrangement in stages and teaching in this sequence provides the "Teacher" with an indication of a child's current level of understanding. This is a considerable help to interactive partners who can then adjust their own level of communication to the level of understanding of the child as indicated by child attainment on the Vocabulary Stages.

COMMUNICATION SYSTEMS USED WITH THE MAKATON VOCABULARY

Speech and signs are commonly used to teach the Makaton Vocabulary and, if required, symbols may be used as well.

Signs

In the United Kingdom signs are derived from British Sign Language, the cultural language of the deaf community. Key words only are signed in spoken word order and are accompanied by normal grammatical speech. Certain features of the natural sign language, such as directional marking, facial expression, and some modifications of hand shape are incorporated. There is no attempt to mark the grammatical inflections of spoken English. It is a form of Signs Supporting English similar to the kinds of "contact pidgin" which occur in natural interactions between hearing and deaf people (Lawson: 1981; Deucher:

1984). In Makaton signing, it is possible to transmit the same message using either very few, or many signs, depending on the ability of the handicapped person, the skill of the signer, and the demands of the situation. More able students, or students who continue to have a dependence on signing, may go beyond the Makaton Vocabulary to Signed English.

Symbols

For many years practitioners working with adults and children with severe physical handicap and learning difficulties have matched Blissymbols or rebuses to the core vocabulary and combined these with speech and signs. It is hoped in the near future that a joint project between the Makaton Vocabulary Development Project and the Blissymbols Institute in the United Kingdom will provide a formal match of Blissymbols to the Makaton Vocabulary.

Recently, a new system of symbols - Makaton Symbols - has been introduced. These have been matched to all the stages of the Makaton Vocabulary to provide an augmentative means of communication for physically handicapped children and adults if speech and signs are not adequate. The symbols are simple rebuses designed over a number of years after a series of recognition trials (Walker: 1985). Collaboration with other professionals working in the field has ensured compatibility with the "Learning with Rebuses" system (Van Oosterum and Devereux: 1985), since both are rebus based.

Makaton Symbols have also been found to be of significant value, when used with the Core Vocabulary and speech and signs, to help pre-reading and reading skills in children and adults with severe learning difficulties (Carpenter: 1986; Henderson: 1986). In the case studies reported in this paper, Makaton Symbols will be those to which reference is made.

A Makaton Symbols computer programme is now available and comprises a symbol bank for the creation of individualised programs and programs for naming, matching and recognitions.

Selection of Modality

According to the philosophy of Total Communication, all modes of communication should be made available to the handicapped person. The Makaton Project views speech, signs and symbols as complimentary to one another rather than as alternatives which are mutually exclusive. Signs can act as useful cues to comprehension for the severely physically handicapped student, who may also need to indicate his needs through gesture and body language (Harris: 1982). Symbols offer a means of teaching language structure and reading skills to all students, and can be used as "back-up" when communication breakdowns occur. Some students may well rely on a complex blend of modalities, as described by MacDonald (1985). Routine access to all modalities reduces the need for rigid decision making procedures. However, where a decision on the main mode of communication must be made, it is suggested that procedures such as those outlined by Alpert

(1980) and Hamre-Nietupski, et al (1986) are adopted whereby performance in each modality is carefully addressed over a period of time.

TEACHING PROCEDURES

Teaching begins for all students at Stage 1. Vocabulary is selected for the student and for the interactors from each Stage as described previously and concepts not required are omitted and additional, essential items are introduced from a later Stage or the Resource Vocabulary of Stage 9 if necessary. Teaching then begins at two levels:-

- formal, where the emphasis is on the acquisition and practice of skills associated with language and communication and the techniques associated with the actual use of the method of communication;
- informal, where the concepts learnt in the formal teaching are generalised and used in a functional manner in the setting of daily life, e.g. getting up in the morning; having breakfast; going to work/school; recreational interests; holidays; shopping, etc.

The sequences in teaching are as follows:-

1. Setting up acts of communication
2. Establishing a learning pattern
3. Use in the context of real objects and events
4. Teaching a range of functions
5. Teaching new concepts
6. Teaching understanding and use of phrases

A fuller account of the teaching procedures are given in the Makaton Vocabulary Teaching Guidelines, Walker (1987; 1976), Grove (1987).

EXTENT OF USE

From the simple beginnings as a practitioner's response to communication needs in an institution, Makaton is now widely used throughout the whole of the United Kingdom, in schools, training and education centres, hospitals, residential homes and clubs and amongst the families of children and adults with communication and learning difficulties.

In an independent survey of sign and symbol use over a 5 year period (Kiernan, Reid and Jones: 1982), showed that Makaton was in use throughout the United Kingdom in 95% of all the schools for children with severe learning difficulties.

It is used to help the following people with communication and learning difficulties:-

People with severe learning difficulties:

Mild - severe

Over entire age range infant - adult

The multi handicapped:

Severe learning difficulties and deafness

Severe learning difficulties and autism

Severe learning difficulties and physical handicap

Severe learning difficulties and visual handicap

Some normal adults with acquired speech and language disorders:

e.g. cerebral vascular accident (a Stroke),
Lower Neurone Disease and Multiple Schlerosis

Young deaf children

Mildly intellectually handicapped with:

A stammer

Elective mutism

Articulatory dyspraxia

Expressive language problems

Overseas, Makaton is in use in the U.S.A., Australia, New Zealand, Hong Kong and Spain where Makaton Resource Centres have been established. It is also used in local settings in Japan, Malaysia, Pakistan, Sri Lanka, Belgium and Norway.

The Core Vocabulary appears to be common across cultures. Only a few cultural changes reflecting differences in family members' roles, diet, custom, climate and religion need to be made to make it acceptable. Where signs are to be used, then signs from the overseas country's own sign language or most commonly used sign system are matched to the concepts. Symbols are matched from the Makaton Symbols, Blissymbolics or a symbol system popularly used in the overseas countries and the general principles of the teaching method are implemented.

The Current use of the Makaton Programme with Children and Adults with Learning and Communication Difficulties

Originally when Makaton was first introduced it was only used with signs and speech. By about 1976 it was realised that a symbol match was also required for physically handicapped people, who might be living in the same environment as others using the Vocabulary with signs and speech or that they too might benefit from being offered this referential, environmental vocabulary to acquire knowledge and skills. At that time a symbol match was achieved on an ad hoc basis as has been described earlier. Then, with the recent development of Makaton Symbols and their increasing availability, a new option has been offered to practitioners and is being rapidly taken up. It offers the complimentary use of signs and symbols with the Core Vocabulary for any person with a communication disorder, irrespective of them having or not having a physical handicap. It is now being offered as another medium to express language and communication. Practitioners are now reporting the following use of the Programme:

1. Signs and speech combined with the Vocabulary are most generally used with children and adults who have profound to moderate learning difficulties, as the primary means of initiating communication. Additionally, symbols are also introduced to provide a secondary interchangeable mode and to develop visual discrimination skills and pre-reading and reading skills (Henderson: 1986; Carpenter: 1986).
2. Parents of very young babies with Down's Syndrome, or other identified conditions where learning and communication difficulties may arise, are using the concepts from the early stages of the vocabulary with signs and speech to encourage communicative interactions. (Le Prevost: 1983).
3. Children with severe physical handicap are offered the Makaton Programme where the core vocabulary is used with Makaton Symbols or Blissymbols as a primary source of communication and signs and speech are offered as additional input modes. Within the Makaton Programme there is a new emphasis on the progression from symbols to reading traditional orthography (OR) (Cousins: 1985; Parsons: 1985).
4. Autistic children have been known to show distinct preferences for signs or symbols with or without speech as their primary mode of augmentative communication. Now using more discriminative approaches such as those already described earlier (Hamre-Nietupski: 1986), individual preferences can now be met by having the Makaton Symbols, to offer as alternatives to the signs. For many autistic children it would seem that the use of symbols is preferred to signs or that the initial beginnings of communication occur through symbols and then progress to signs and speech.
5. Other categories of communication disorder also seem to be benefitting from the broader application of symbols. For some time visually impaired people have been introduced to the Vocabulary with signing (Mountain: 1984). Now with the simple

Makaton Symbols practitioners are beginning to introduce them on boards where the outline of the symbols is emphasised through texturing or raising the surface of the outline of the symbol.

6. Practitioners using Makaton with signs, symbols and speech with children and adults who have specific language disorders e.g. severe comprehension problems; expressive speech problems such as, for example, word finding and sequences difficulties and severe articulation problems have found the initial use of the small core vocabulary helpful in reducing ambiguity and overloading which may result from use of a free-ranging vocabulary. Through the use of the small core it is possible to centre attention on specific features of the interactive process which are presenting difficulties. The use of signing with speech reduces pressure because the student has an alternative to speech to use. The symbols provide concrete, tangible, units of language which may be manipulated by the teacher and student to illustrate grammatical and linguistic forms and which also provide consistently similar and lasting information and cues - the equivalent of which cannot be achieved by either speech or signs.

The Makaton Vocabulary Development Project

The hub of the Makaton activity generates from the Makaton Vocabulary Development Project in the U.K. - a Charitable Trust - which provides training courses and workshops, resource materials, a research information service and a network of approximately 250 Makaton Representatives throughout the U.K. Overseas, several countries have their own Makaton Resource Centres which are developing on similar lines to the U.K. model. It is estimated that approximately 40,000 professionals and parents have been trained in the United Kingdom alone.

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