DOCUMENT RESUME

ED 376 686 EC 303 516

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TITLE Towards Community-Based Communication Intervention for Severely Handicapped Children. Report ASS/BBS-48.
INSTITUTION Human Sciences Research Council, Pretoria (South Africa).
REPORT NO ISBN-0-7969-1542-3
PUB DATE 93
NOTE 86p.
AVAILABLE FROM The Secretariat, Social Co-Operative Programmes, Human Sciences Research Council, Private Bag X41, Pretoria 0001, South Africa.
PUB TYPE Reports - Descriptive (141) -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS *Augmentative and Alternative Communication; *Communication Disorders; *Community Programs; *Delivery Systems; Elementary Secondary Education; Foreign Countries; Normalization (Disabilities); *Program Development; *Rehabilitation; Severe Disabilities; Social Integration
IDENTIFIERS Community Based Rehabilitation; *South Africa

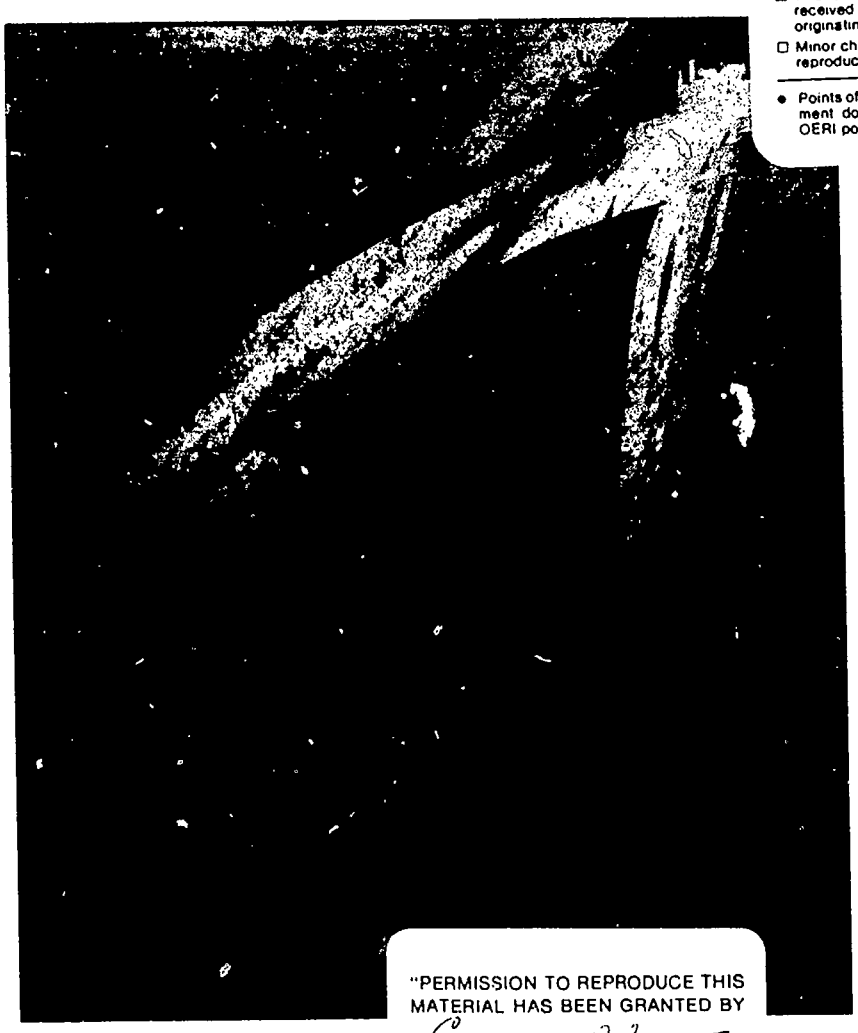
ABSTRACT

This report describes the development of a community-based service for the implementation of augmentative and alternative communication strategies with regard to children with severe disabilities in South Africa. The intervention process was developed by the Centre for Augmentative and Alternative Communication of the University of Pretoria. The service was designed to be socially sensitive and to move towards facilitating a community-based infrastructure for the integration of individuals with severe disabilities into their communities. The underlying assumption of the service model is equal rights and opportunities for people with disabilities to become integrated members of the community. The first three phases of the service included initial formal training sessions at six schools, follow-up visits, and more structured informal training sessions. The first three phases are discussed and evaluated in terms of inputs and results, emphasizing the attainment of objectives and affordability. Attention is also given to specific problems, implementation, and the potential for the development of further phases in the service model. Appendixes contain copies of questionnaires and other program implementation and evaluation data and forms. (Contains 32 references.) (JDD)

Report ASS/BBS-48 1993

Towards community-based communication intervention for severely handicapped children

Erna Alant



Co-operative HSRC Programme: Affordable Social Provision

Towards community-based communication intervention for severely handicapped children

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Co-operative HSRC Programme: Affordable Social Provision
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Printed and distributed by the HSRC
Private Bag X41
Pretoria
0001

The Co-operative HSRC Programme: Affordable Social Provision is situated within the Group: Social Dynamics and is managed by a committee of experts drawn from the public and private sectors in South Africa.

The emphasis in the programme is on finding effective and affordable alternatives in the main fields of social policy – income maintenance, health, human settlement, employment development and social welfare. In this report the focus is more specifically on the description and evaluation of a programme of intervention in the communication networks of severely handicapped children.

Committee chairperson: Prof. Ritha Ramphal, UDW
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ISBN 0-7969-1542-3

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ACKNOWLEDGEMENTS

Although the research on the service model was sponsored by the Co-operative HSRC Programme: Affordable Social Provision, the service itself is maintained by various private agencies. In particular I would like to extend my appreciation to the following donors for their support in maintaining and developing this very meaningful service to the severely handicapped people and their families in our communities:

- The Liberty Life Foundation,
- Anglo American Chairman's Fund,
- Standard Bank and
- ITHUBA

I would also like to express my sincere appreciation to the communities of Mamelodi, Atteridgeville, Laudium, Eersterust and Pretoria as well as the CAAC team who are partners in this process. In particular I would like to thank Juan Bornman, the co-ordinator of the CAAC, for all her assistance with this project.

I would also like to express my appreciation to the following people:

- Prof. I.C. Uys, Head of Department, Speech Pathology and Audiology, University of Pretoria, for her continual support of the work in the CAAC;
- Denise Holton, Department of Computer Science, University of Pretoria, for all her assistance with the data analyses;
- Mr Grimbeeck, Department of Statistics, for his assistance.

EKSERP

Hierdie verslag beskryf die ontwikkeling van 'n gemeenskapsgebaseerde diens vir die instelling van aanvullende en alternatiewe kommunikasiestrategieë (AAK) ten opsigte van ernstig gestremde kinders. Die onderliggende aanname van die diensmodel is gelyke regte en geleenthede vir mense met gebreke sodat hulle geïntegreerde lede van die gemeenskap kan word. Dit is 'n aksienavorsingsprojek wat fokus op die beskrywing van die aanvanklike fases van 'n gemeenskapsgebaseerde diens by die Sentrum vir Aanvullende en Alternatiewe Kommunikasie. In die lig hiervan lê die verslag klem op die ontwikkeling van 'n diensmodel en nie op 'n breedvoerige beskrywing van kommunikasiestrategieë wat gebruik word om mense op te lei nie.

Aangesien aanvullende kommunikasiestrategieë relatief onbekend in Suid-Afrika is, moes onderwysers en ander belangrike mense in die lewens van ernstig gestremde kinders opgelei word om AAK-strategieë te verstaan en te gebruik. Die opleiding moes voldoende infrastruktuur in hierdie kontekste skep om die kommunikasievermoëns van ernstig gestremde kinders te handhaaf en verder te ontwikkel. Mense in verskillende kontekste word bemagtig om die kommunikasieprobleme van gestremde kinders te hanteer. Dit word gesien as 'n belangrike eerste stap in die uitbreiding van die diens na ander gemeenskapsgebaseerde projekte vir ernstig gestremde mense wat nie kontak met spesifieke institusionele kontekste het nie.

Die eerste drie fases van die diens word volledig bespreek en beoordeel in terme van insette en resultate. Die klem val op die bereiking van doelwitte en op bekostigbaarheid. Aandag word ook geskenk aan spesifieke probleme, die implementering van die diensmodel en die potensiaal vir die ontwikkeling van verdere fases. In die laaste instansie word die volgende fase (Fase 4) van die diensmodel kortliks bespreek.

ABSTRACT

This report describes the development of a community-based service for the implementation of augmentative and alternative communication (AAC) strategies with regard to severely handicapped children. The underlying assumption of the service model is equal rights and opportunities for people with disabilities in order to become integrated members of the community. This is an action research project that focuses on the description of the initial phases of a community-based service by the Centre for Augmentative and Alternative Communication. As such the focus of the report is on the development of a service model and not on the detailed description of the communication strategies used to train people.

As augmentative communication strategies are relatively unknown in South Africa, the teachers and significant others in the lives of severely handicapped children had to be trained to understand and implement AAC strategies. The purpose of the training was to create sufficient infrastructure within these contexts to maintain and further develop the communication abilities of severely handicapped children. People in the different contexts are empowered to deal with the communication problems of the severely handicapped children. This is seen as an important first step in the expansion of the service to include other community-based projects for severely handicapped people who are not in close contact with specific institutional contexts.

The first three phases of the service are discussed and evaluated in terms of inputs and results, emphasizing the attainment of objectives and affordability. Attention is also given to specific problems, implementation and the potential for the development of further phases in the service model. Finally, the next phase in the development of the service model (Phase 4) is discussed.

EQUAL RIGHTS AND EQUAL OBLIGATIONS

Children with disabilities are neither rewards to nor punishments for their families, although at times, as with all children, they may seem like either or both. And, as with all children, they present both burden and opportunity to the family. They are entitled, as are all children, to be nurtured and loved, to hope and aspire, to have opportunities to contribute to society, to live in the community with family and friends.

Three principles from the United Nations World Programme of Action Covering Disabled Persons, adopted by the General Assembly in 1982, bear noting here:

25. The principle of equal rights for the disabled and the non-disabled implies that the needs of each and every individual are of equal importance, that these needs must be made the basis for the planning of societies, and that all resources must be employed in such a way as to ensure, for each individual, equal opportunity for participation. Disability policies should ensure the access of the disabled to all community services.

26. As disabled persons have equal rights, they also have equal obligations. It is their duty to take part in the building of society. Societies must raise the level of expectation as far as disabled persons are concerned, and in so doing mobilize their full resources for social change.

27. Persons with disabilities should be expected to fulfil their role in society and meet their obligations as adults. The image of disabled persons depends on social attitudes based on different factors that may be the greatest barrier to participation and equality. (*World Programme*, 1983, p. 7)

Effective family support programs are essential for equal rights and equal opportunity for persons with disabilities.

Gartner, Lipsky & Turnbull
1991:207

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INTRODUCTION

As South Africa moves towards democratization and social restructuring, a high level of consciousness is developing around the problem of how to give people access and opportunities to participate more actively in society. An important implication of this move also relates to the meaningful social integration of the severely handicapped person (SHP) into his/her community. How to achieve a better integration of SHPs into society, however, is a complicated matter that is currently receiving much attention on the international front.

This study aims to describe an intervention process developed by the Centre for Augmentative and Alternative Communication that is not only socially sensitive, but moves towards facilitating a community-based infrastructure for the integration of SHPs into their communities. As this is indeed a complex issue, the study can at best be described as exploratory in nature, the scientific value of which lies in the opportunities to facilitate and stimulate further discussions on the topic of community-based rehabilitation.

As this service introduces a new concept of intervention with regard to severely handicapped people in South Africa, there is little professional expertise in dealing with the implementation of augmentative communication strategies. Although committed to a community-based approach, a service model has to be developed that makes provision for the introduction of new intervention strategies where there is relatively little knowledge and expertise.

The service started off by training teachers and parents at schools for severely handicapped children to establish some points of reference for the further development of the service. This report focuses mainly on the first three phases of the service model by discussing the issue of the SHP in society in Section 1, while Section 2 focuses on the research design and methodological approach; Section 3 deals with the results of the intervention, Section 4 focuses on critical issues relating to the service model and Section 5 describes the next phase (Phase 4) of the service model as well as some future perspectives. Section 6 contains some closing remarks.

The project forms part of the Co-operative HSRC Programme: Affordable Social Provision which aims to stimulate research into different service models that could be implemented to give communities a more affordable and accessible service.

SECTION 1: THE SOCIAL INTEGRATION OF SEVERELY HANDICAPPED PERSONS: A COMMUNICATION PERSPECTIVE

The social integration of severely handicapped persons (SHPs) into society has been a major problem throughout history. This problem not only stems from the communication and other limitations flowing from the disabilities of these people, but also from the lack of understanding and prejudices from other people in society. This lack of understanding and attitudinal problems often lead to the SHP being rejected or segregated from society as this option is seen to be more beneficial to both society and the SHP. The consequence is a high level of SHP institutionalization which by implication discourages contact between the SHP and the community. This lack of contact not only denies the SHP the opportunity to interact with peers, but also reduces the chances of normal children and adults to gain understanding of the SHP in interaction with him/her.

A significant implication of the attitudes towards and prejudices against SHPs is the lack of educational opportunities for them. SHPs are institutionalized, and although **care** is provided, manifest focus on their **educational** rights is lacking.

One of the major problems contributing to society's lack of understanding and prejudice is its inability to communicate with the SHP. Often the SHP is unable to express him/herself verbally to such an extent that others can understand. This lack of verbal expression is often perceived to be a reflection of an **inability to communicate** with people rather than an invitation to explore the use of other ways or means of communication in order to make contact with the person. However, no or very limited verbal expression is not necessarily an indicator of reduced communication need; it may rather be a sign of extreme frustration and isolation.

1.1 SEVERE COMMUNICATION PROBLEMS

It is well accepted today that 7 - 10 % of the population suffer communication problems. Of these people a certain percentage are unable to communicate verbally, while others have limited ability to express themselves through the verbal mode.

In three different studies (Aiello 1980; Burd *et al.* 1988; Matas *et al.* 1985) it is estimated that 0,15 - 0,6 % of school children and 3,5 - 6 % of all children in special education have no or very little ability to express themselves verbally. Although descriptive information is limited, Aiello (1980) and Matas *et al.* (1985) suggested that multihandicapped children with or without a cognitive lag accounted for the biggest group of children classified as "non-speaking".

From the above it is clear that by far the majority of non-speaking people can be classified as "severely handicapped". Falvey (1989:1) defines "severely handicapped" as follows: "... those children, adolescents and adults who have

been labelled as being trainable mentally retarded, severely and profoundly multihandicapped, autistic, deaf/blind, and/or severely emotionally disturbed. In addition, Sailor and Guess (1983) stated that these people have varying strengths and weaknesses and that the only aspect they had in common with each other related to the degree of dependence on services and support from others.

Due to the severity of the handicap, SHPs have often been described as "unable" to be their own advocates and to make informed decisions about themselves (Lehr & Brown 1984). This kind of approach, therefore, emphasizes the "inability" of SHPs to control their own lives and to make their own decisions.

In contrast to the above, Gold (1980:5) defined mental retardation as "the level of power needed in the training process required for (the individual) to learn and not by limitations in what he or she can learn". He continued by stating that "[t]he height of a retarded person's level of functioning is determined by the availability of training technology and the amount of resources society is willing to allocate and not by significant limitations in biological potential" (Falvey 1989:2).

Another major contribution made by Gold (1980) refers to the competency/ deviancy hypothesis which stresses that the more competence an individual has, the more deviance will be tolerated in that person by others (Gold 1980:6). The implication of this statement is that if sophisticated technology is not available, or has not been developed to increase or change a person's behaviour, the focus of that person's intervention should be on teaching him or her competencies, e.g. a person who cannot talk should be introduced to other means of communication in order to facilitate general interaction.

The main purpose of increasing competency in the severely handicapped person is the facilitation of integration into society. "As a policy direction, integration means the elimination of social, cultural, economic, and administrative barriers to community integration and the design of services and supports to encourage, rather than discourage, involvement in community life and to cultivate, rather than impede, relationships between people with developmental disabilities and nondisabled people" (Taylor 1988:51).

In relation to the issue of integration, Taylor and Racino (1991:235) stated that "[t]he issue of 'institutions versus the community' which has dominated the attention of the field of developmental disabilities for nearly 20 years, is yesterday's issue. That people with severe disabilities can be served in the community is no longer an unproven proposition ... The primary issue today has to do with how to foster full participation in community life."

1.2 AAC: AUGMENTATIVE AND ALTERNATIVE COMMUNICATION

AAC refers to any communication strategy used to enhance the communication of people who have limited or no functional verbal communication. The aims of such strategies are, firstly, to augment speech to such an extent that interaction between the SHP and his/her environment can be normalized as far as possible and, secondly, to promote the literacy skills of SHPs by giving them access to other symbol systems as a "bridge" to literacy.

AAC strategies include both aided systems (e.g. the use of symbol systems, communication boards and electronic equipment) and unaided systems (e.g. the use of gestural systems). It is important to point out that the aims are to give people access to communication or literacy - not to teach them a particular system. This often implies using a multicomponent system whereby a combination of systems is used (e.g. certain gestures + symbols on a communication board + vocalizations) for use in different contexts. The relevance of the content selected as well as the availability of the communication systems for everyday use are of the utmost importance to ensure meaningful implementation.

One of the major difficulties in particularly using aided communication is the slow speed of communication. In order to improve the access to messages and the speed of conveying messages (e.g. by using speech synthesizers) a great variety of high technology has been developed internationally. Although effective, these systems are not always accessible to people due to costs, maintenance and additional problems. Therefore, developing countries with vast percentages of SHPs have to adopt less costly yet efficient techniques and methods to satisfy the needs of their SHPs.

South Africa, like other developing countries, has a problem with the affordability, equitability, accessibility and appropriateness of its health services. This necessitates a cautious approach when rendering AAC services. Improvement in communication ability tends to increase the quality of life of the individual, i.e. enhancing capacities for choice, and it cannot be separated from the infrastructure for health and social development in a particular country. This is particularly relevant when addressing issues of technology and sustainability.

1.3 AIMS OF THE STUDY

This study specifically aims to:

* discuss the issue of community-based rehabilitation as a background to the proposed service model;
* describe the service model used for the implementation of AAC strategies in the Centre for Augmentative and Alternative Communication (CAAC) based at the University of Pretoria, by focusing on the aims and the method used for training;
* highlight critical issues relating to the intervention model that has been developed.

It is important to note at this stage that the focus of the report is on the service model that is being developed and not on a description of the specific augmentative and alternative communication strategies that are used in the different contexts. More information about the selection and implementation of AAC strategies can be obtained from the Centre for Augmentative and Alternative Communication. The particular service model is entering its fourth year of implementation and is therefore still in the process of further refinement and development.

1.4 COMMUNITY-BASED REHABILITATION: MOVING TOWARDS A SERVICE MODEL

Making technology more appropriate for developing countries has become a major issue in the socio-economic development debate in these countries. Rifkin and Walt (1986) have identified two schools of thought in relation to the implementation of technology in developing countries. The first school maintains that if technology could be successfully implemented, it would transform society so that a new value system would develop. This approach which could be called a modernization approach focuses on the efficacy of interventions and the need to transfer existing technologies as quickly as possible. Intervention models and approaches are emphasized, for example the centre-based models of AAC (Blackstone 1989) in which the team of experts evaluate and recommend appropriate intervention strategies within a particular context. The second school of thought holds that society must evolve in its own way and must therefore develop its own infrastructure for dealing with and using technology. In this way the technology would be adapted or changed to suit the particular culture and resources. Technology is effective or appropriate when within itself it is an

integral part of the development of the society to which it is transferred. This approach focuses on the process through which intervention might be accepted.

This second approach can be described as the primary health care approach, also known as "comprehensive health care", about which Rifkin and Walt (1986:560) have the following to say: "Briefly, we see primary health care as being concerned with a developmental process by which people improve both their lives and life-styles. Good health is a key factor to this process." Central to the second approach is the concept of equality, implying accessibility to health services, the need for a multisectoral approach to health problems, and community involvement. Snell and Browder (1986) refer to community-referenced instruction and focus on the philosophy of normalization and applied behaviour analysis. They maintain that normalization assumes the importance of teaching skills for adult life in the community and sets some guidelines for social validation of the results.

According to the second model, AAC implementation can only succeed if integrated within the existing health network and based on active community involvement or participation. This implies that all decision making and initiative should be taken by the community itself in order to assume responsibility for the intervention procedure as well as for the maintenance of the process. The stress placed on involving significant others in the training of SHPs in the use of AAC strategies emphasizes the importance of understanding and recognizing the infrastructure of the community within which individuals live. The issue is not so much one of introducing people to AAC, as it is the maintenance and extension of a communication system once it has been introduced.

The involvement of the community in the decision making and in the implementation of AAC strategies is thus mandatory. Abrams (1992:3) has emphasized this aspect by stating that "the essential element which determines a genuine developmental process is who ultimately makes the decisions". A significant issue, however, revolves around who should constitute the community that is involved. The heterogeneity of opinion within a specific community necessitates the careful description of which people are involved in a particular decision-making context. It is clear that there is need for an infrastructure or network that can reinforce the programme. However, it has been stressed that such infrastructures cannot be sustainably developed on their own without all others progressing simultaneously (Abrams 1992). To use the health infrastructure seems logical, although Rifkin (1986:241) has emphasized that it is not possible to build self-sustaining community participation through health service activities alone. Firstly, community participation is a process of changing individual perceptions in the course of time as the dynamics of community members change. Also, when asked what communities want, health services are not necessarily regarded as primary needs. In addition, not many people in the community have had any experience in providing health care and they see little scope for

involvement. While the provision of a single-section health service programme (e.g. an immunization programme) often builds credibility, it also limits the possibility of widespread and sustained community participation because these programmes tend to be more specialized. "Community people will gladly accept the benefits, but not as easily accept the re-sponsibility people have expected" (Rifkin 1986:243). It is against this back-ground that the introduction of an AAC service model for developing countries becomes interwoven with a very complex set of social networks.

The term "community" as used in this paper refers to all people involved in the training context, e.g. a school or training centre including, for example, the staff, parents, aides and other interested parties.

The concept "community-based" centres around the integration of the service within a particular context. The service is thus aimed at creating an infrastructure within which the handicapped person can communicate with others in order to enhance integration into the community. Being part of a community means being part of something larger than yourself, something that touches the lives of people (Taylor & Racino 1991).

To move from a segregated society requires that one looks at the acceptance and strengths that are already present in people and communities, but which are often unrecognized. The emphasis is thus on identifying **internal resources** and **strengths** in order to facilitate relevant and meaningful problem solving. For a very long time the emphasis in dealing with severely disabled people has been on providing facilities and programmes. "It is time now to shift our attention to creating the supports, both formal and informal, that people with developmental disabilities need to live in a home and participate in the community" (Taylor & Racino 1991:236). According to these principles, a service should be affordable, accessible, equitable but also effective.

It is, however, important to note that whereas the modernization approach tends to over-accentuate the functions of technology (capital, expertise, facilities), the primary health care approach easily gets bogged down by the frustration of unrealistic expectations about the innate abilities of the community itself. An integrative or dialogical approach is needed where the creative input of society is taken as central input, also recognizing, however, that development cannot be brought about without an investment of expertise, facilities, technology and capital. It is essential that the "dead-lock" between the modernization and primary health care models which has been prevalent in South Africa up to now, be replaced by a more integrative or dialogical perspective. This would better serve a future South Africa, incorporating both "external" and "internal" initiatives in development. This is especially so in the process of creating opportunities for SHPs in our country.

SECTION 2: METHODOLOGICAL APPROACH

2.1 THE CENTRE FOR AUGMENTATIVE AND ALTERNATIVE COMMUNICATION (CAAC): The context from where the community-based service is conducted

The CAAC (established in 1989) is based at the Department of Speech Pathology and Audiology, University of Pretoria, and is privately funded. As the only centre of its kind in Africa, the primary functions of the CAAC are to:

i. provide information to all interested parties;
ii. train professionals as well as other interested parties in the use of AAC strategies;
iii. do individual consultations with SHPs in need;
iv. do, and stimulate, research in AAC in South Africa.

Although the field of AAC is internationally well established, very little is locally known about the general approach and implementation of AAC strategies with SHPs. This fact posed an initial problem in that there were few people in communities who could support and guide the implementation of AAC strategies. As the CAAC is committed to community-based training, it was decided to start the service by concentrating on the areas where most severely handicapped children could be located, for example, close to schools for the severely handicapped. The aims were to develop loci of expertise at these schools, from where further community projects could be supported (see Section 5). The service area of the CAAC is the greater Pretoria region (Region H excluding the Witwatersrand and Vereeniging areas). Although this report focuses on children, the CAAC deals with all age groups.

2.2 POPULATION OF THE STUDY

The universe of the study includes teachers and parents as well as other significant others of SHPs at six schools for SHPs. As this is a paid-up service, all interested parties from these contexts were included in the training. Altogether 72 persons from the different contexts were involved in Phase 1. After the formal training (Phase 1), follow-up visits were paid to five of these schools in order to discuss further needs for training and support (Phase 2). The training done at one of the schools that requested more structured informal training *in situ*, constitutes Phase 3. The "population" for Phase 4 comprises all those bodies and individuals who are participating in the community project in the Themba area.

2.3 DESCRIPTION OF THE POPULATION

2.3.1 Trainee characteristics

Fig 1

Respondents from various schools (%)

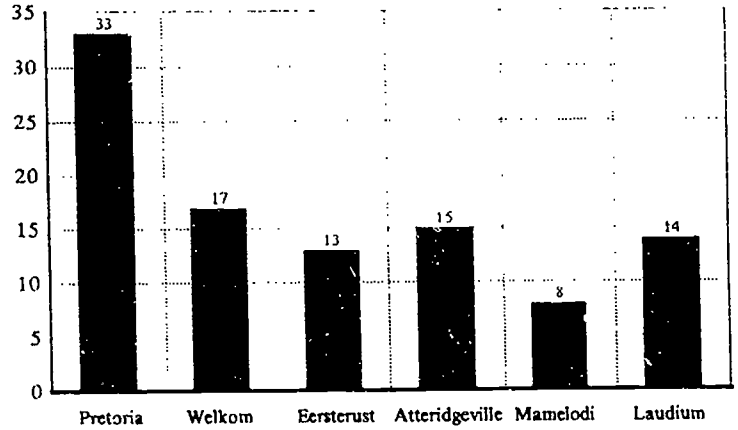


Fig 2

Sex of respondents (%)

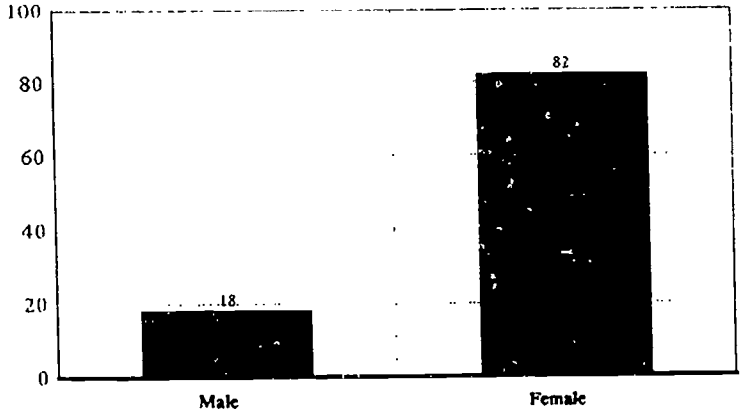


Fig 3

Relationship of respondents to SHPs (%)

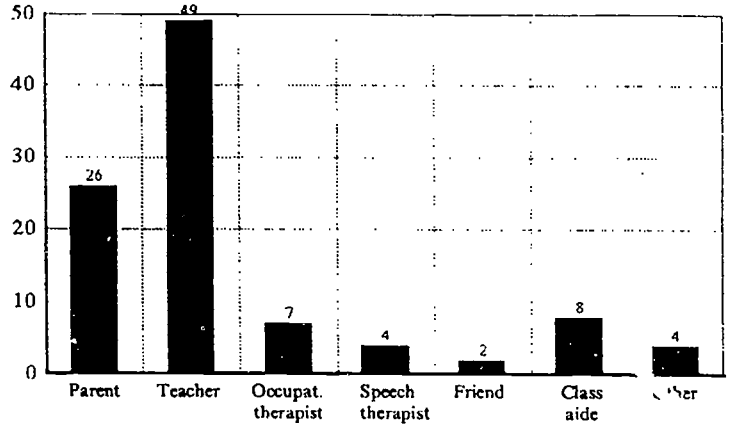


Fig 4

Qualifications of respondents (%)

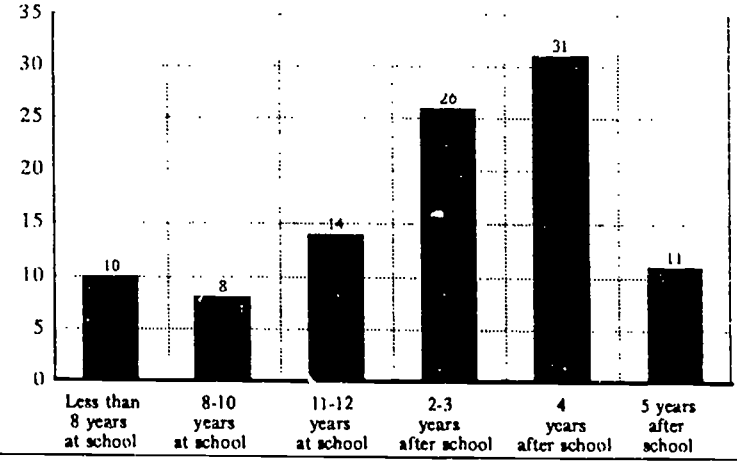


Fig 5

Special training received (%)

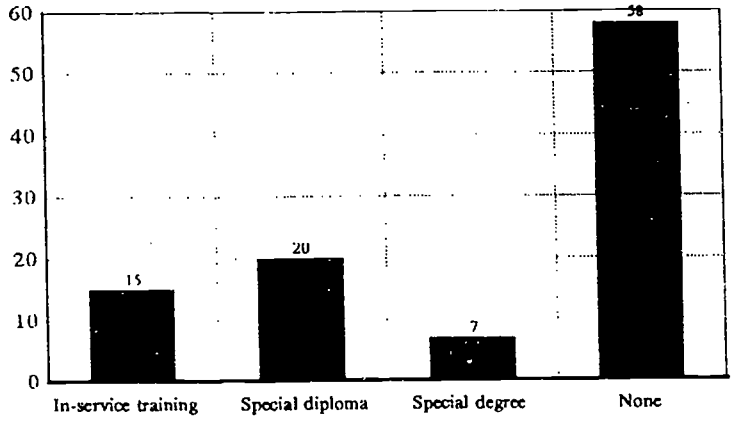


Fig 6

Length of time worked with disabled people (%)

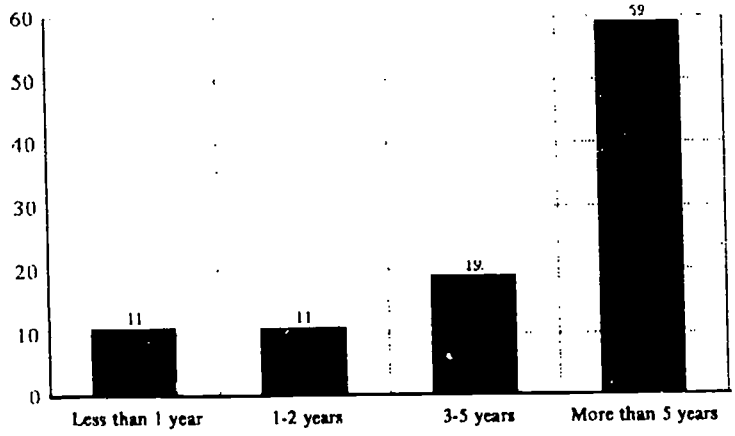


Figure 1 provides an analysis of the training contexts used in the data presented in this report. Three of the schools are Afrikaans medium schools (Welkom, Pretoria and Eersterust), two have Northern Sotho and Zulu-speaking pupils (Atteridgeville and Mamelodi) and one is an English medium school (Laudium). All these training contexts were schools for severely handicapped children.

Most of the trainees in these schools were female teachers, with parents forming the second biggest group (Figures 2 and 3). Although most of the people who were trained had some form of post-matric training, 10 % of them had fewer than eight years of schooling (Figure 4). It is interesting to note that although the importance of including peers in training sessions is emphasized, none of the contexts included peers at an initial training level. This can be attributed to two factors: firstly, the non-disabled people's need to acquire knowledge about AAC strategies before introducing them to disabled people and peers, and secondly, the nature of the specific population at these training centres, most of whom are severely cognitively restricted. Fifty eight per cent of trainees had had no previous training to work with disabled people (Figure 5), although 59 % (Figure 6) had been working with disabled people for more than five years.

2.3.2 People involved in different phases of the study

The primary focus of this report is on the first three phases in the development of the service model:

* Phase 1: The initial training session. All six schools participated in the initial training (100 people).
* Phase 2: The follow-up sessions after initial training. Due to the distance and other practical problems, the Welkom school was not included in the follow-up visits. The description of the training contexts included in this phase is presented in Table 1.

TABLE 1: DESCRIPTION OF TRAINING CONTEXTS

	Context 1	Context 2	Context 3	Context 4	Context 5
Region	Pretoria	Atteridge-ville	Laudium	Mamelodi	Eersterust
Language	Afrikaans	N. Sotho/ Zulu	English	N. Sotho	Afrikaans
No. of non-speaking children in school	47	7	9	12	15
No. of children who do not read	83	74	17	61	40
No. of children with position-ing problems	32	3	4	3	8
No. of teachers	10	11	3	5	6
No. of class aides	9 full-time 1 half-day	2	4	1 full-time 4 (2 days per week)	1
Speech therapist	15 hours per week	None	None	None	10 hours per week
Occupational therapist	1 full-time	None	1 full-time	None	5 hours per week

* Phase 3: More structured informal training sessions *in situ*. During this phase, one school was used (Context 4) where one teacher (in her class) was the focus point of training. The teacher is a 43 year old Sotho-speaking woman with no training in special education although she has a B.A. degree. The teacher was selected by school staff as the children in her class were described as having the most need for AAC intervention. There were eight children in the class (seven boys and one girl). Their ages varied from seven to ten years with mental ages estimated between two and four years, although no formal testing had ever been done on these children.

2.4 RESEARCH DESIGN

A case study design is followed whereby a community-based approach to implementation of AAC strategies is described. This approach is particularly relevant when dealing with AAC implementation within specific contexts because attitudes, social infrastructure as well as the nature and severity of the handicaps differ considerably.

Qualitative research methods are used because of the intentionally open-ended and exploratory character of the study. The strategic practice of avoiding *a priori* definition of hypotheses, unit of analysis and measurement parameters before the research process is under way is foremost in this kind of approach. The purpose is to describe social phenomena in terms that attempt to preserve organization, interpretations and meaning of phenomena as constructed by the individuals involved (Gaylord-Ross 1992). This report reflects action research and aims to give a detailed account of the processes involved rather than focusing on the experimental control of variables characteristic of traditional and quantitative research strategies.

Graphic representations are used to illustrate descriptive statistics. The research design as such is more intended to promote discussion than to make a proven point.

2.5 THE CAAC SERVICE MODEL

2.5.1 Aim of the service model

The aim of the model is to develop a community-based service for the facilitation of communication with SHPs by means of augmentative and alternative communication strategies.

Fig 7: *AAC intervention model* (based on Emmett *et al.* 1991)

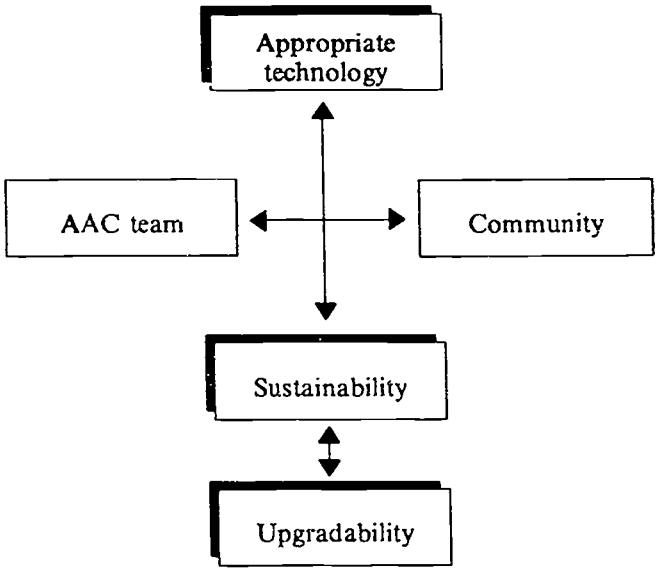


Figure 7 represents the basic components of the AAC service model to be discussed. It centres around making intervention (expertise, capital, technology, facilities) an integral part of community participation and decision making in order to provide a basis for a sustainable service that has some potential for upgradability. The processes of sustainability and upgradability are complex and based on continuous re-evaluation of needs within a particular context.

Figure 8: ***Community-based AAC intervention***

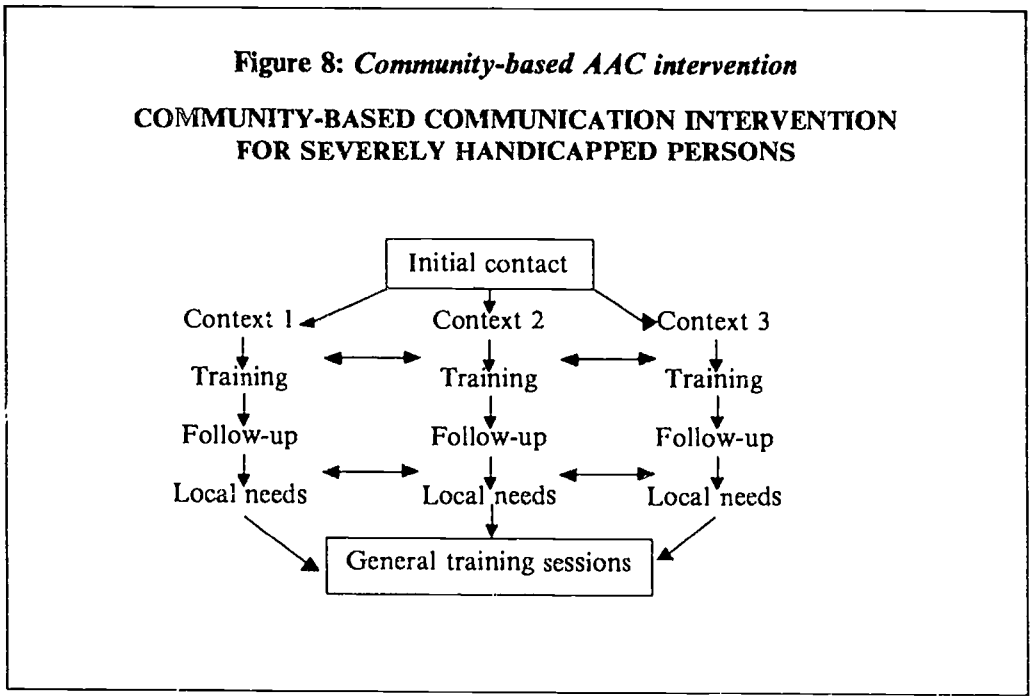


Figure 8 represents the process used by the CAAC in facilitating sustainability and upgradability. This figure emphasizes the nature of the community-based approach in that each context is regarded as a separate entity for training and follow-up interactions even though interaction between the training contexts is encouraged. No reference to formal generalized training sessions is made (where contexts are combined for training) until much later in the process of intervention. Focusing on general training sessions for all contexts is seen as a later, more advanced stage in the training process as people need to identify their own needs and apply principles and techniques to their own context without direct support from trainers. Another vitally important aspect of the model involves the networking between training contexts. Different community contexts are encouraged to interact with one another in order to create supportive networks for the implementation of communication systems within communities. These contacts could involve visits to the different contexts as well as joint gatherings.

2.5.2 The first three phases of the service model

2.5.2.1 *Phase 1: Initial training sessions (formal training)*

A. The process of training

Institutions or individuals approach the CAAC for information relating to AAC strategies. This is followed by an informal visit of CAAC staff to the particular venue. Discussions centre around motivating people to see that "the way things are now, is not the only way they could be" (Hope & Timmel 1984:4). If a request for training is received, the following steps are followed:

1. A visit to the institution/school or home in order to familiarize the CAAC staff with the environment of the trainees and to make a video-tape recording of the children with specific problems to which the CAAC staff should pay special attention during training. The reason for this is that much emphasis is placed on the relevance of training in each context. The language preference of the trainees as well as the clients is determined in order to adjust training to the needs of the context.
2. The trainees are asked to fill in a questionnaire on attitudes and skills/knowledge of AAC in order to provide some background to the trainers of the level at which training should be directed, as well as of the extent of homogeneity among the group members (see Questionnaire before training, **Appendix 1**).
3. A one-day training session is held, mostly *in situ*, focusing on AAC principles and multicomponent communication systems. Graphic, gestural systems as well as technology are introduced (see below: Content of initial training).
4. After the training sessions an evaluation questionnaire is used in order to assess the efficacy of the training session in terms of knowledge in AAC (see Questionnaire after training, **Appendix 2**).

B. The content of initial training sessions

The primary aim of the training sessions is to expose people to the concept of AAC, multicomponent communication and the various ways in which integration into the community (Snell & Browder 1986) can be achieved. See **Appendix 4** for an example of a training outline. The following issues are emphasized during training:

1. The importance of developing an infrastructure for the disabled person within which s/he can communicate. In order to achieve this, no fewer than five people (preferably more) from a particular community have to be selected for any one training session. Everyone in the individual's environment, that is teachers, aides, friends or caregivers, is encouraged to attend (Cumley & Beukelman 1992). During the training session it is strongly suggested that the

trainees establish an AAC interest group within their context in order to establish an organizational structure which would facilitate further regular contact with the CAAC as well as disseminate information on a local level. Various authors (Abrams 1992; Hope & Timmel 1984) emphasize that the sustainability of development of a service is far more dependent upon organizational capacity than appropriate technology or state support.

2. The two AAC aims are discussed: Firstly, augmenting verbal interaction in situations where the individual has little or no functional speech; and secondly, using AAC strategies to prepare pupils for literacy in cases where they cannot read, but will be taught to read in future. This function of AAC strategies is receiving much attention in the international AAC community at present as reflected in the number of papers presented on this topic at the fifth conference of the International Society for Augmentative and Alternative Communication in August 1992 in Philadelphia, USA.
3. In teaching communication, the focus is on facilitating community-reterenced skills (Snell & Bowder 1986). The usefulness to the individual of what is taught is emphasized in order to facilitate normalization.
4. Much use is made of stories and role playing (Werner & Bower 1982) in order to help trainees act out problem-solving situations similar to those encountered in their own context and in this way to increase the relevance of the teaching context.
5. Information given during the training sessions centred around the use of graphic symbol systems as most trainees were ignorant of the use of these systems for communication. Due to exposure to the deaf community, most of the trainees had had some superficial exposure to gestural systems. Even so, the main emphasis was on multicomponent communication, thus emphasizing that the aim is to facilitate communication or literacy and not to teach the child "Bliss symbolics" or any other symbolic system.

2.5.2.2 *Phase 2: Follow-up visits after initial training (informal visits)*

Approximately three months after training, the first follow-up visit is made to the training context in order to determine the status of trainees regarding the use of AAC. This informal process is aimed at documenting what has occurred within the context since the first visit and at identifying the variables responsible for the occurrence (Meyer & Janney 1989; Wacker 1989). An important additional aim is the identification of needs for further training and support within the context. Information gained at each visit is documented to facilitate understanding of the contexts (**Appendix 3**).

2.5.2.3 *Phase 3: More structured informal training sessions*

Based on the needs identified by the community during follow-up visits, further informal training sessions are planned by CAAC staff. These sessions differ in content and structure depending on the needs within a particular context. The training context reported on in this study will be discussed in more detail.

A. Aims of the more structured informal training

To facilitate the implementation of AAC systems by:

1. developing teachers' teaching and communication skills in working with severely handicapped children;
2. developing parents' communication skills in interacting with their own children;
3. making people aware that these children have the potential to learn if exposed to opportunities for learning.

B. Methods used in the *in situ* training

1. In order to be effective, training had to be done in the classroom with the teacher or with the parent in interaction with the child. Training was therefore done at the school.
2. Eight visits were made to the school, each visit lasting five hours. One visit was made per week, with the formalized training being spread over two months (see Table 2).
3. One teacher in the school was selected by the school staff to be the focal point of training as she was regarded as the person most in need of training. Training took place with the children in her class, with the head of department and other teachers observing and participating at various points.
4. During each visit, approximately three hours were spent in the classroom while the rest of the time was spent by training mothers to interact with their children. Other parents were encouraged to observe.

5. During the final session, video tapes that were made during the training were discussed with the staff and parents.

6. An example of the methods and activities used is given in Appendix 6: Intervention sheet in the classroom.

2.5.2.4 *Specific dates of fieldwork in the communities*

TABLE 2: DATES OF FIELDWORK TRAINING

	Context 1	Context 2	Context 3	Context 4	Context 5	Context 6
PHASE 1 Initial training session	08/06/91	16/05/91	24/06/92	19/02/92	26/02/91	14/03/91
PHASE 2 Follow-ups	24/10/91	15/10/91	02/11/92	19/06/92	25/09/91	
	23/10/92	10/06/92		06/11/92	12/06/92	
		21/10/92			20/ 1/92	
PHASE 3 Structural informal training				18/03/93		
				25/03/93		
				29/04/93		
				13/05/93		
				03/06/93		
				09/06/93		
				17/06/93		
				24/06/93		

Table 2 gives the exact dates of the fieldwork in the different contexts. It is clear from this table that five of the six contexts were exposed to follow-up visits from the CAAC *in situ*. The only context that was not exposed to these visits was the Welkom school. This school was excluded as the distance made it impractical for the CAAC staff to do follow-up visits. Thereafter it was decided to exclude schools for training outside of the Pretoria area. As the CAAC is the only such centre in Africa, it has to supply training in other geographical areas, but this training is not part of the community-based training service of the CAAC.

As far as the follow-up visits are concerned, it proved to be difficult to revisit the schools every three to four months due to a remarkable increase in workload in the CAAC. To facilitate efficient training the CAAC team needs to reconsider the visiting schedule, for example identifying certain months of the year for initial training sessions and follow-up work.

Finally, the rescheduled dates of informal training are given under Context 4 (Table 2). Instead of two months as intended, this training period stretched over three months due to political unrest in the area.

2.5.2.5 *Documenting change*

As the documentation of change forms a vital part of systematic and reflective implementation, various rating scales and scoring systems have been devised to facilitate this process. Apart from documenting change the implementation of these descriptive systems is seen as an important stimulant for discussions between CAAC staff and the community. Documentation occurred as follows:

Phase 1: Questionnaire before and after training (see Appendix 1 and 2)

Phase 2: Analysis of follow-up visits (see Appendix 3)

Phase 3: Documentation of aims and procedures (Appendix 6)
- Teacher evaluation of the training (Appendix 7)
- Progress chart of teacher skills as evaluated by CAAC team (Table 4 – see Section 3.3.1)
- Intervention sheet: Training parents and children (Table 5 – see Section 3.3.4)

SECTION 3: RESULTS OF INTERVENTION

3.1 PHASE 1: PRE- AND POST-TRAINING EVALUATIONS

3.1.1 Graphic representations

Fig 9

Will using non-verbal means of communication prevent talking?

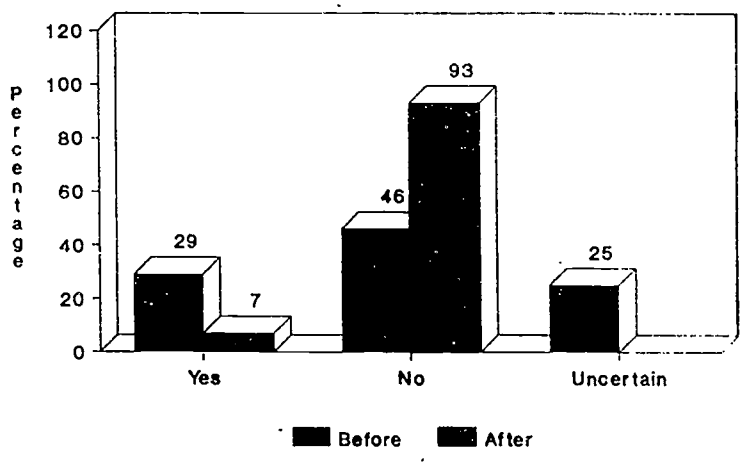


Fig 10

Will people who cannot talk ever learn to read?

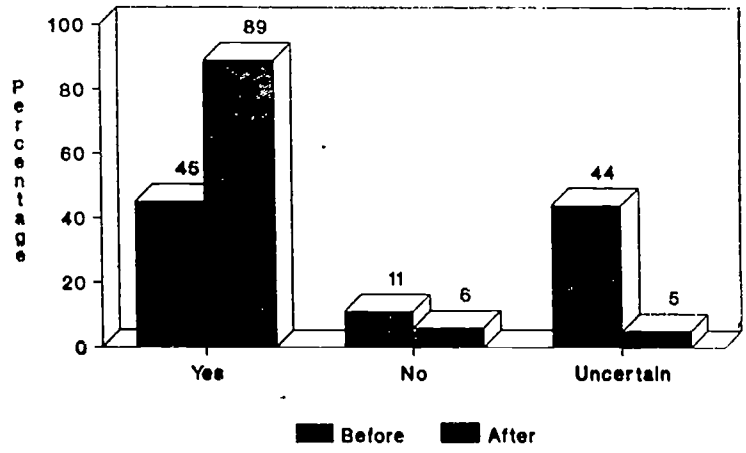
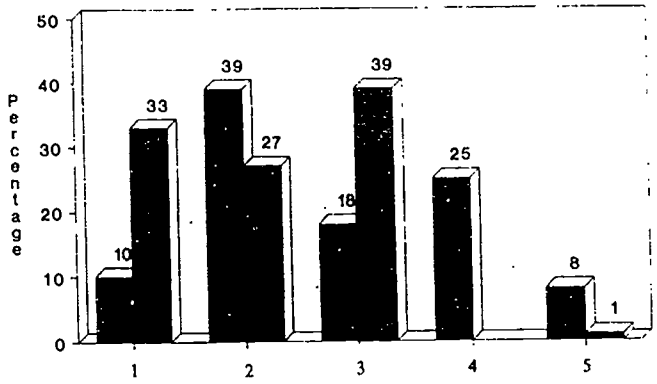


Fig 11

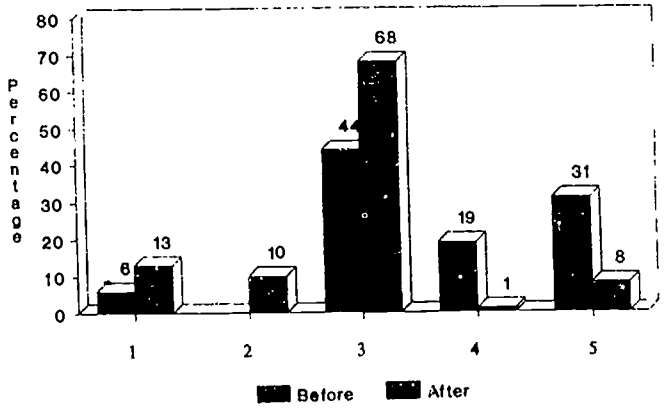
What is a symbol system?



1. Represents objects
2. Pictures and symbols
3. Used for communication
4. Don't know
5. Other

Fig 12

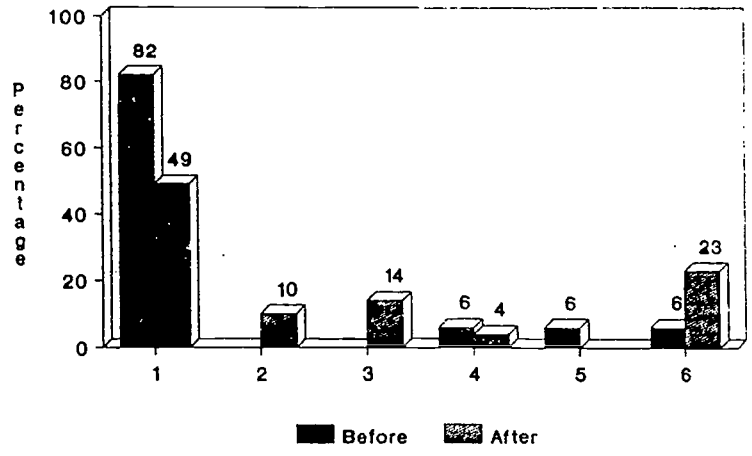
How does a symbol system differ from pictures?



1. Symbols more extensive
2. Bridge to literacy
3. More abstract/comprehensive
4. Don't know
5. Other

Fig 13

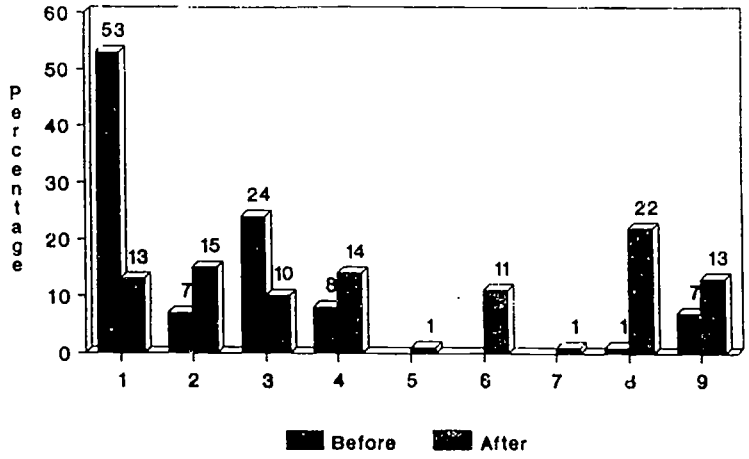
For whom is a symbol system useful?



1. Non-speaking persons
2. Persons with limited verbal ability
3. Severely cognitively restricted persons
4. Deaf persons
5. Don't know
6. Other

Fig 14

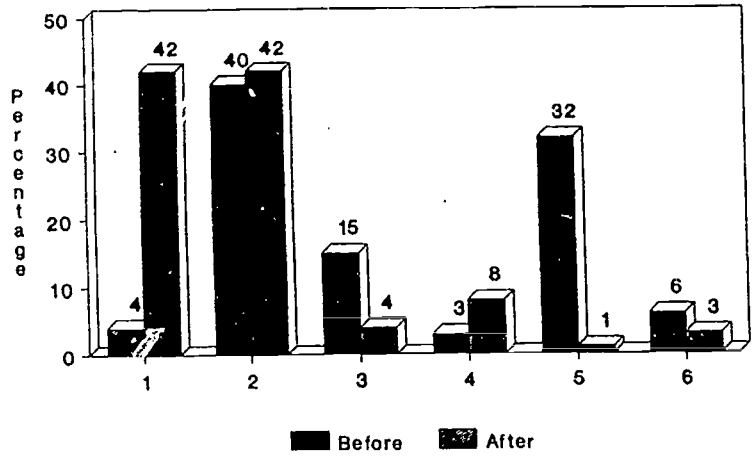
What skills are required for using a symbol system?



1. Visual: Focus - tracking - seeing
2. Attention: Focus - eye contact
3. Desire to communicate
4. Cognitive skills
5. Positioning
6. Pointing
7. Initiation
8. Combination of above
9. Don't know

Fig 15

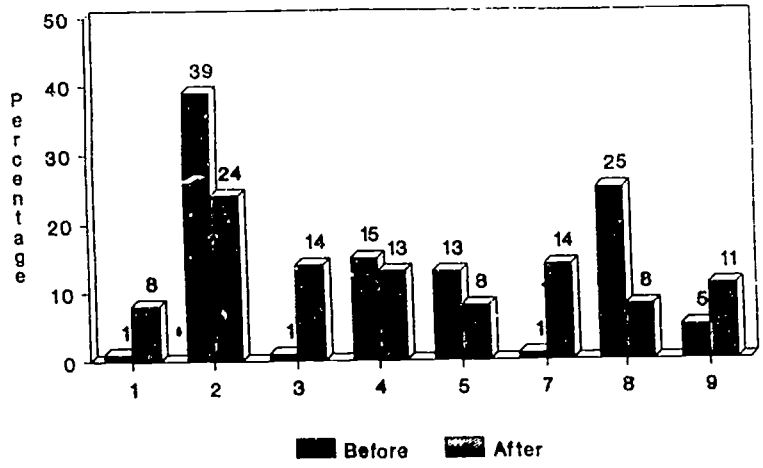
Necessary steps to teach someone to use a symbol system



1. Object - picture - symbol
2. Meaningful context/needs/interests
3. Expose them everywhere
4. Prerequisites
5. Don't know
6. Other

Fig 16

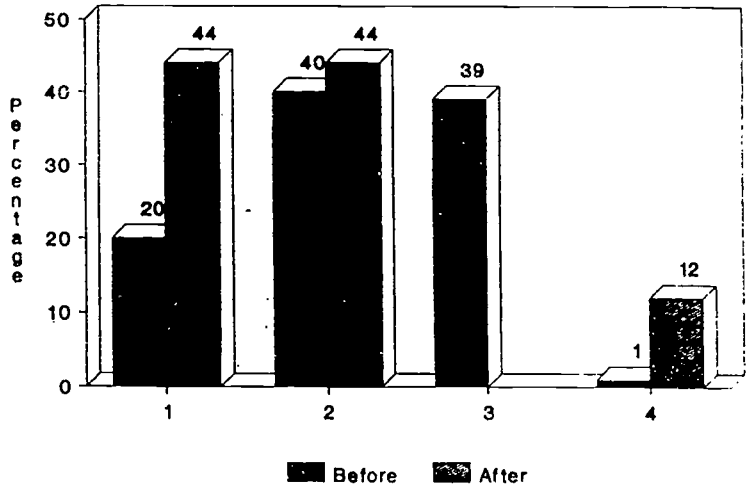
What are the biggest problems in using a symbol system?



1. Slow/time consuming
2. Others don't understand system
3. Limited messages
   Inconsistent responses from user
5. Users become dependent on it
6. Becomes soiled
7. Motivation/team use
8. Don't know
9. Other

Fig 17

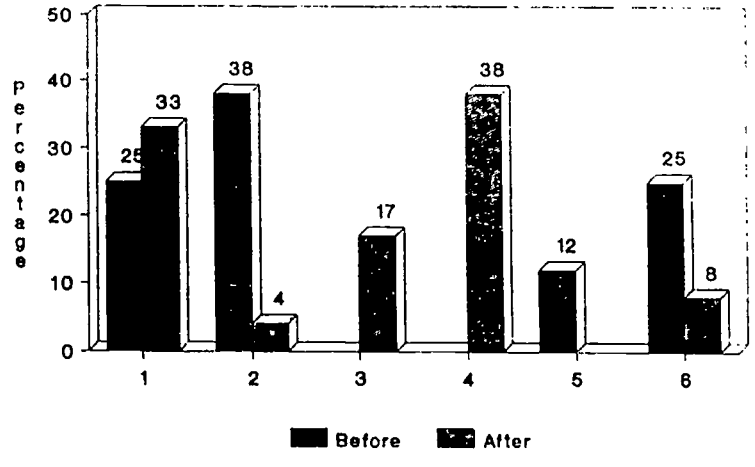
What is a communication board?



1. Objective: To communicate
2. Contents: Symbols etc. on board
3. Don't know
4. Other

Fig 18

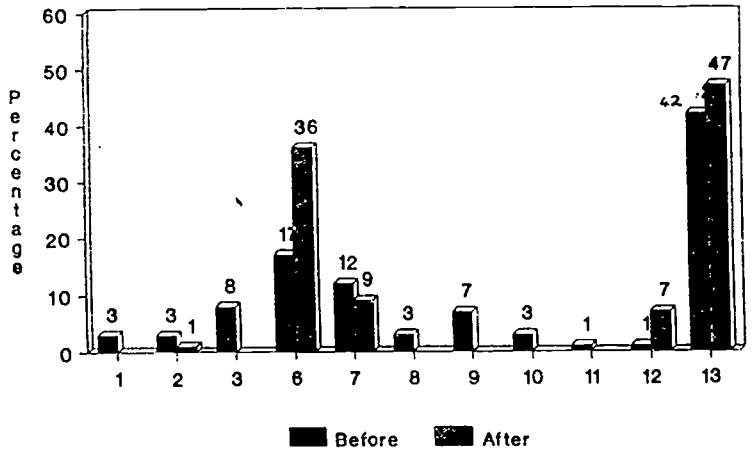
Important points when making a communication board



1. Functionality
2. Useful/small/easy to use
3. Not too many items at a time
4. Combination
5. Don't know
6. Other

Fig 19

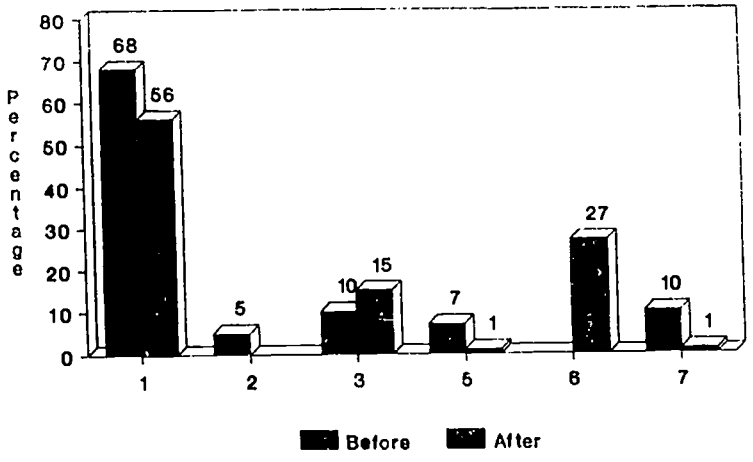
Who should teach them to communicate?



1. Parents
2. Teachers
3. Speech therapists
4. Occupational therapists
5. Friends
6. Combination 1 + 2
7. Combination 1 + 2 + 3
8. Combination 2 + 3
9. Combination 1 + 2 + 3 + 4
10. Combination 1 + 3
11. Combination 1 + 2 + 3 + 5
12. Combination 3 + 4
13. All in environment
14. Don't know

Fig 20

What do you expect to gain from this training session?

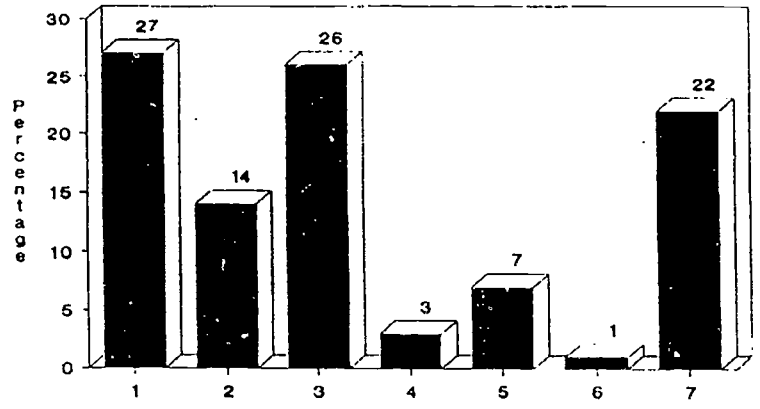


Knowledge with regard to:

1. Insight into handicap - communication
2. Methods of teaching speech
3. Symbols
4. Signs
5. Implementation of communication systems
6. Improve teaching skills
7. Don't know

Fig 21

Recommendations for the improvement of training sessions



1. Commendable/good/dedication
2. More video/practical
3. Follow-up sessions
4. Longer - one day is too short
5. Reading/practical hand-outs
6. Don't know
7. Other, e.g. training of parents/ more training at normal schools

Figures 9 to 10 indicate pre- and post-training differences in responses to attitudinal questions towards non-speaking people and AAC strategies. Although it is acknowledged that attitudes are not changed overnight, these differences in responses reflect an openness to information and training that is a most valuable starting point for intervention. They also indicate that the training provided in the initial stages has made some positive impact on the trainees.

Figures 11 to 16 relate more specifically to the training in graphic symbol systems. The differences in pre- and post-training responses reflect a heightened awareness of the importance of symbols in communication as opposed to pictures and objects which are more concrete. A broader awareness of the skills relating to successful implementation (Figure 14) as well as the processes used for teaching symbols (Figure 15) and the identification of problems relating to this process (Figure 16) is evident.

Figure 17 deals with the concept of a communication board. It is clear from this representation that 39 % of the people didn't know what a communication board was before training, and that all were familiar with the concept afterwards. They also showed a much broader awareness of important issues that need to be taken into consideration when making a communication board (Figure 18). Figure 19 relates to the question of who should teach children to communicate. It is interes-

ting to note that after training there seemed to be more agreement among trainees as to the importance of including teachers and parents (category 6) as well as all others in the environment (category 13) in the training process.

Figures 20 and 21 deal with the evaluation by the trainees of the training sessions. Figure 20 reveals that most of the trainees expected to gain from the sessions knowledge and insight into communication with disabled people. Post-training evaluations revealed that although 56 % gained the expected knowledge, 27 % felt that the session improved their teaching skills.

Figure 21 reflects the recommendations by the trainees for further training sessions. From this diagram it is clear that 26 % could identify an immediate need for follow-up contacts with CAAC staff whereas 22 % realized the importance of training others in the contexts to facilitate implementation.

3.1.2 Comment

Although the definite changes observed between pre- and post-training evaluations are encouraging in the initial stages of intervention, it is important to point out that these results do not guarantee successful intervention. The supportive structure, appropriate knowledge and skills of all involved as well as the disabled person him/herself will determine whether this potential for change will manifest itself in more concrete ways.

3.2 PHASE 2: FOLLOW-UP DATA AT FIVE TRAINING CONTEXTS

Table 1 (2.3.2) gives a description of the different training contexts in terms of number of children needing AAC intervention and the teaching and supportive staff at the schools. It is clear from this table that there are big differences between the various training contexts as regards the number of children in need of communication and literacy training as well as the number of staff members and support personnel.

TABLE 3: FOLLOW-UP DATA IN DIFFERENT TRAINING CONTEXTS

	Context 1		Context 2			Context 3	Context 4		Context 5		
Number of visits	1	2	1	2	3	1	1	2	1	2	3
Time lapse (months)	4	12	5	8	4	5	4	5	7	9	5
Attitude towards AAC	4	4	3	3	3	4	2	2	4	3	3
AAC implementation	2	3	2	1	1	2	1	1	2	3	3
Parent contact	1	1	1	1	1	1	1	2	2	2	3
Motivation for AAC implementation	2	3	2	2	2	3	2	2	3	3	4
Individual orientation to problems	3	4	1	1	2	3	3	2	2	2	2
Group orientation to problems	2	3	3	3	3	3	2	1	1	1	2
Fact finding: information	2	3	1	1	1	3	1	1	2	2	3
AAC core group established	N	Y	N	N	N	Y	N	N	N	N	N
Awareness of internal resources	2	3	2	1	1	3	1	1	2	3	3
Awareness of external resources	3	3	3	1	2	3	3	3	3	3	3
Implementation of low technology	2	4	1	1	1	3	1	1	2	3	4
Implementation of high technology	1	1	1	1	1	1	1	1	1	1	1
Teaching symbols for communication	3	4	1	1	1	2	2	1	3	3	2
Teaching symbols for literacy	1	1	1	1	1	1	1	1	1	1	1

Rating: 1 = Limited 4 = Extensive

Table 3 represents the data after the first formal follow-up visits done by CAAC staff to five contexts in which training took place. Various important issues are highlighted in these observations (see Swil (1982:14-21) for definitions of specific terminology within community work theory):

1. Implementation: All except one of the training contexts (Context 4, Table 2) had implemented some AAC strategies in the work context after the initial training. Although the implementation was limited, it was clear that the importance of motivation and the need for the use of these systems were realized. This aspect was most encouraging as some of these contexts had little professional support.
2. Fact-finding: Although some effort was made to obtain more information in Context 1, 3 and 5, little additional information was obtained in Context 2 and 4. It is also interesting to note that the latter two schools did not have any professional support staff, e.g. occupational or speech therapist (see Section 2.3.2, Table 1: Description of training contexts).
3. Individual *versus* group orientation to problems: Most of the contexts had some sensitivity towards the individual needs of the children by focusing on individual problems. However, Context 4 and 5 reflected difficulties in generalizing problems in order to formulate strategies for implementation in the school. There was little contact between staff, which might have contributed to the lack of a holistic vision within these settings. Context 2, however, had a strong orientation towards identifying problems that the group/school as a whole experienced. Little reference was made to individual children.
4. External *versus* internal resource orientation: The extent to which people in the various contexts attempted to make technology suitable for their clients could be related to their general orientation in terms of resources. People who were mainly focused on using internal resources found it easier to make adjustments for clients, e.g. Context 1 and 5. The technical aids that were made included: boxes for object boards, communication books, adapted switches for tape recorders, communication boards and tins. See **Appendix 5** for examples of low technology used. Context 2 and 4 in which no communication aids had been made were strongly orientated towards external resources with a preference for buying "ready-made" equipment. However, the fact that there are no financial resources to do this at present limits their efficacy.
5. Comparison between contexts: Context 1 and 3 represent more affluent financial contexts together with better qualified staff. In spite of this, however, it is interesting to note that the overall evaluation of AAC implementation, awareness of resources and teaching symbols for communication was most favourable in Context 5. In fact more attempts were made at involving parents in Context 5.

6. Use of symbol systems to facilitate literacy: None of the contexts used symbol systems as preparation for literacy even though very few of the children in the schools could read at all. More information and training in the implementation and function of symbol systems for reading are essential.

7. Establishment of AAC core group: Finally, perhaps the most significant issue in terms of further intervention is related to the fact that only two contexts were able to develop an AAC core group or committee to take responsibility for further contact and dissemination of information. Although various aspects could be contributing to this, lack of confidence among people to establish an infrastructure for the ongoing support of AAC strategies seemed to be the major problem. This problem may be consistent with Rifkin's (1986) statement that, as few people have had any experience in providing health care (or related therapeutic services), they are unsure whether they can make a meaningful contribution. The development of such an infrastructure obviously demands much more support and effort from all involved in order to ensure that whatever was implemented would be sustained over a long period of time. It could also be a reflection of the complexities involved in the process of community participation as highlighted by Tumwine (1989). Although this can be interpreted as a failure of participants to follow up on the insights developed during the formal training phase, it is important to remember that community-based implementation takes time, particularly in view of the fact that people do not only need the knowledge, but also the self-confidence to implement AAC strategies successfully.

3.2.1 Comments on follow-up data

1. From the above it became clear that the different training contexts differed greatly in relation to their functioning and orientation to the implementation of AAC strategies. Each had strengths that could be used to develop implementation.

2. The contexts that had the least professional support for teachers (e.g. Context 2 and 4) had more difficulty in implementing AAC strategies. The informal visits by CAAC staff during follow-ups were also not as effective in encouraging and developing implementation programmes within these contexts as expected. The hesitance of teachers and parents to introduce communication strategies in these contexts can also be attributed to the multidisciplinary intervention model traditionally used within school contexts and teacher training. Teachers and aides were unfamiliar with the concept of transdisciplinary work and the important role they could play in the implementation of these strategies in the absence of other professional staff.

3. It was against this background that the CAAC staff felt a need to extend follow-up visits into the phase of formalized *in situ* training sessions to provide the support the teachers, parents and class aides needed in implementation.

3.3 MORE STRUCTURED INFORMAL TRAINING *IN SITU*

For the purpose of this report the process used for formalized follow-up training in Context 4 is described. As mentioned before, due to political unrest and holidays the eight training contacts were spread over a period of three months.

3.3.1 Changes in the teacher's behaviour in the classroom

During the three month period, the changes observed in the teacher as well as the eight children in her class were remarkable in terms of various aspects. Table 4 (see next page) reflects the improvement of the teacher's skill from the first to the final visit as evaluated by the CAAC team members. It is clear that the teacher improved markedly in all areas of functioning.

3.3.2 Teacher's evaluation of training by the CAAC

The teacher's evaluation of the training process during this time is reflected in **Appendix 7**. Perhaps the most significant changes in the attitude and skills of the teachers revolve around the achievement of success in the classroom. The general observation that the children were able to participate much more meaningfully in activities that so obviously relate to reading and communication contributed to much discussion and enthusiasm among the staff.

3.3.3 Informal observation of children's behaviour

Informal observations of the children in the class indicate a definite increase in verbalization among the children as well as the ability to get access to reading through Blissymbolics (see **Appendix 6**). Photographs of the training process can be seen in **Appendix 8**.

3.3.4 Parent-child interaction

Table 5 reflects the intervention results in respect of two mothers and their children.

It is clear from this table that the parents were very eager to participate and that they applied training principles at home. One of the most significant changes that took place, however, revolved around the conscientization of the parents. They became aware that their own intervention could contribute greatly to their children's development and that they formed an integral part of the intervention team.

TABLE 4: CAAC STAFF DESCRIPTION OF TEACHER'S PERFORMANCE IN CLASS

Interaction Interaction with children	1	2	③	4	X
Sensitivity towards the needs of the children	1	②	3	X	5
Participation of the children	①	2	3	X	5
Goals Clarity of teaching goals	①	2	3	X	5
Appropriateness of teaching goals for children	1	②	3	X	5
Appropriateness of communication goals in class	①	2	3	X	5
Literacy goals	①	2	X	4	5
Skill Appropriateness of material used	①	2	3	X	5
Appropriateness of activities	1	②	3	X	5
Non-threatening class atmosphere	1	2	3	④	X
Knowledge of teacher Social environment of children	1	②	3	X	5
Personal needs of children	1	2	③	X	5
Language functioning of children	①	2	3	X	5
Communication systems Use of AAC system with children	①	2	3	X	5
Appropriateness of use	①	2	3	X	5
Progress System for describing progress	①	2	X	4	5
Overall rating of teacher performance	1	②	3	X	5

Teacher: CONTEXT 4
Date: O = 18-03-1993 X = 09-06-1993
CAAC staff: A.M. WIUM & J. BORNMAN
RATING SCALE: TEACHER'S INTERACTION IN THE CLASS
1 = poor 3 = average 5 = very good

TABLE 5: INTERVENTION SHEET: TRAINING PARENTS AND CHILDREN

DATE	GOALS	RESULTS	COMMENTS
18/3/93 Stephina & Jan	Matching of an object and picture as preliminary communication skills	Mother, Stephina, assembled 16 objects with matching pictures - child knows them	Mother very motivated and pleased with child's performance
25/3/93 Stephina & Jan	Teaching of symbols for communication	Mother taught six symbols: car, in, stop, garage, go, cup	Jan started verbalizing "car", mother now even more motivated
29/4/93 Stephina & Jan	Expansion of symbols, e.g. spoon, window, boy, girl	Mother reports that Jan is verbalizing more: "Mama", "Jan", "bye", "*lepola*" (spoon), "*mtogo*" (porridge), "*koloi*" (car)	Mother very enthusiastic to teach new symbols. Also revised symbols taught in class at home on own initiative
13/5/93 Stephina & Jan	Explain the making of a communication board	Mother asks relevant and practical questions about making and colour coding of system	With all the materials in her environment she made a communication board. Asks information regarding the use of system. Mother needs further guidance regarding the use of a system. She needs more training
18/3/93 Jane & Thabo	Matching of one object with another to later use an object board	Mother, Jane, assembled five objects, but not all were relevant to child, e.g. cigarettes	Give more information on relevant objects. Give mother more encouragement
25/3/93 Jane & Thabo	Explain the functional use of objects, e.g. spoon and brush	Mother tried this activity at home, but still random	Mother seems unaware of child's abilities, and mure information should be given
29/4/93 Jane & Thabo	Matching of objects and pictures for preliminary communication purposes	Mother assembled ten pictures, but they were all placed on a small paper and seemed to overstimulate Thabo	It seemed as if Thabo had not yet reached this level (picture) - should rather continue with objects
13/5/93 Jane & Thabo	Show mother how to make an object board	Mother very enthusiastic Now realizes that her child can make choices	Thabo seems to be able to make a chuice between two objects. This can be expanded to three. Mother needs continuous training - she doesn't know how to change to symbol use

Various parent meetings were held at the school since emphasizing the parent's role in intervention.

3.3.5 Development of a core group at the school

Perhaps one of the most rewarding developments at the school relates to the establishment of a strong core group for the promotion of AAC implementation. This core group includes two teachers and one parent. The core group was discussing the possibility of starting a parent group to help with the making of relevant material for AAC implementation with more children in the school. Subsequent contact with the parents was also made and the beginning of such a group was confirmed.

In addition to the core group, two of the staff members also volunteered to become involved in the Pretoria committee for INTERFACE (the South African association for people with severe communication problems). This was particularly positive, as networking with other associations for disabled people, e.g. Disabled People South Africa (DPSA), can be facilitated in this way.

SECTION 4: CRITICAL ISSUES RELATING TO THE SERVICE MODEL

The results of the initial training, follow-ups and formalized training sessions reflect a very meaningful interaction between the training contexts and the CAAC staff. Although a very rewarding process, the demands of the service model on staff are great. At times serious reflection on intervention procedures was needed in order to keep the process on track. It is, however, important to see the development of the process within the political context of change in South Africa at present. Tensions at schools between staff and educational authorities as well as between different school staff factions initially contributed to difficult and stilted interaction. As the mutual trust between CAAC staff and training contexts developed, these factors were minimized. In fact, one of the most rewarding outcomes of the process relates to the warm and close friendships that have developed between people who work together under rather difficult circumstances.

4.1 LABOUR-INTENSIVENESS OF THE PROCESS

The community-based model described in Figure 8 emphasizes the need for training in context during initial phases of implementation. As training is per definition orientated towards increased relevance in a particular context, the service model is labour intensive. This point was also raised in the report by the Hugh MacMillan Institute (Boschen, Schuller & Blackwell 1992) in which they found that a community-based orientation to rehabilitation (CBR) was equally (if

not more) demanding on staff time than a traditional intervention model. Instead of working with one person in rehabilitation (pull-out model of therapy), the therapist is working with the person in context. Emphasis is therefore placed on the integration of the SHP with his normal environment. This necessitates working with significant others, school staff and peers. It is a service model which is more demanding than interacting with a client on a one-to-one basis since the therapist is co-responsible with the community for developing an infrastructure for the successful implementation of the strategies. **CBR intervention is thus not necessarily less labour intensive, but can be more cost effective when overall change is evaluated.**

4.2 THE DEVELOPMENT OF "SUCCESS STORIES"

An important implication of training in context is the shared responsibility as community members and CAAC staff form a partnership in implementation. The benefit of this partnership is the increase in the possibility of success and thereby creating "success stories" in the community. By observing and participating in successful intervention the alternatives become real, resulting in an increase in confidence and in motivation for implementation. "Success stories" also create opportunities for networking as other people involved with severely handicapped children can come and observe.

It is against this background that doing intervention with a particular teacher in a school context becomes much more meaningful than simply training one teacher or parent. The spin-offs from systematic contact with a school and its people have far-reaching benefits, particularly when viewed as a means of creating a more supportive infrastructure for implementation. The use of these trained teachers in training sessions in other contexts also increases the credibility and relevance of training (see Section 5, Phase 4 of the service model).

4.3 FACILITATING THE DEVELOPMENT OF AN INFRASTRUCTURE FOR SUPPORT IN THE COMMUNITY

An attitude of support and sincerity forms the backbone of any implementation process. Building on people's strengths and in this way empowering them to take independent decisions are of central importance in CBR work. Partnership between CAAC and communities will continue (although the nature of the relationship will change) through the different stages of development and decision making. Initiative for contact and training will be with the community as people create their own infrastructure for support. For example, since contact has been made with the CAAC, two of the training contexts created posts for speech therapists in order to support implementation of AAC strategies by teachers and parents. As contact increases with these contexts and people gain confidence, the development of core groups also become a reality. In addition to this, the people's

interest in networking with other associations and institutions also increases as was noted in the results after structured informal training had been done in Context 4 (Table 2).

AAC implementation is seen in a broader framework as improving attitudes and integrating the severely handicapped with society. As such the process is slow but far reaching in terms of making people realize that this deprived group in our society also has a right to education and social integration (Gartner, Lipsky & Turnbull 1991).

4.4 CAAC STAFF TRAINING

One of the major issues revolving around successful implementation centres on a commitment from staff not only to enter a partnership with the community, but also to make a difference, thus to facilitate change. As change implies insecurity and uncertainty, the partnership should also provide the support and knowledge necessary to facilitate problem solving and ongoing commitment to the process.

Training of CAAC staff therefore does not just involve developing skills in AAC strategies, but to a large extent also sensitizing the staff to CBR in the broader sense. As speech and occupational therapy as well as psychology and teacher training have been largely insensitive to the social processes in society, this aspect of staff training is vitally important to ensure a creative partnership with communities. Important issues that needed training and discussion included:

* Appropriateness of intervention: This reflects the realization that intervention can only be meaningful and sustainable if the people identify with the priorities of intervention. This involves the recognition of the continuous need for skill and knowledge development in each context. For example, in the beginning CAAC staff often felt that so much more could be achieved if the CAAC took full responsibility for implementation. This attitude and approach from CAAC staff reflected the emphasis in their basic training.
* The slowness of the process: Staff contended that the process of CBR seemed slow without any marked changes. On closer scrutiny, however, it became clear that changes were occurring, but that the staff were not always sensitive towards identifying changes in the context. To address this issue was felt to be of cardinal importance as this provided the basis for evaluation and documentation of the intervention.
* Documenting intervention and change: To be accountable as a professional in any context demands monitoring of progress and change. Criteria for evaluating movement or progress have to be developed. CAAC staff also have to become focused on developing rating scales and schedules that can facilitate the documentation process and therefore also facilitate the process of conscientization and of evaluative thinking. Video tapes of intervention con-

texts often stimulate group discussion and further evaluation of the intervention process. The skill to document change is not only of primary importance for the promotion of accountability among the CAAC staff, but also for facilitating the process of documenting change within the community.

4.5 TRANSDISCIPLINARY TEAMWORK: THE ONLY ALTERNATIVE TO MEANINGFUL COMMUNICATION INTERVENTION WITH SHPs

To cope with the complexities of CBR necessitates a meaningful support structure for staff in order to ensure ongoing staff development and commitment. A non-threatening context for the discussion of problems and sufficient support for problem solving ensures contentment and creativity among staff. A transdisciplinary team approach, where team members are willing and able to develop, share and be responsible for providing services that are part of the total service plan, is essential to ensure learning across disciplines and team building. In this way the team not only broadens its horisons by developing skills in interacting with the communities, but also increases its sensitivity for the process of rehabilitation as opposed to the discrete elements of the process (e.g. speech therapy, occupational therapy).

It is, however, important to point out that a transdisciplinary approach towards rehabilitation as manifested in the CAAC does not mean that the individual therapist is not involved in direct services as emphasized by Orelove and Sobsey (1991). The direct involvement of the therapist is made relevant to the level of participation and development within a community. Four assumptions are basic to a transdisciplinary, community-based model in working with an SHP:

* The abilities of the child are best observed in his natural context.
* Functional teaching, i.e. teaching the child something he wants to use or will use, is of vital importance to facilitate motivation and interaction.
* Intervention does not only take place as an isolated event, but in the natural context within which the child communicates. It is therefore of vital importance to train all in the immediate environment of the SHP to know how to interact with the child.
* Skills must be taught in a natural context to ensure that it is functional for the person.

Although one could argue that these are basic assumptions underlying any relevant therapy, it is important to realize that they are even more important when working with SHPs. It is well documented that SHPs often have difficulty in generalizing skills from one situation to another, lack motivation to communicate

(often because of learned helplessness) and have inconsistent behaviour patterns (Calculator & Bedrosian 1988). Community-based intervention is not primarily used with the SHP because it is more cost effective, affordable or accessible, but because it is the only viable alternative to ensure meaningful communication intervention with the SHP.

4.6 AFFORDABILITY AND ACCESSIBILITY OF SERVICE

As most of the SHPs and their families are not in a position to afford extensive rehabilitation services, the CAAC accepted that it would primarily depend on outside funding as is the case with similar organizations in other countries (Gartner, Lipsky & Turnbull 1991). Although all people are charged for services, these charges are negotiable. The development of low technology communication aids also increases the affordability of the service. It is important, however, to point out that the more severe the physical impairment of the person, the higher the possibility becomes of having to opt for a high technology system in order to create the means for communication. In such a case, high technology is needed in order to fulfil a basic need for communication. Access to funding sources, therefore, becomes important. CAAC staff will have to become more involved in helping communities to obtain funding for such communication devices.

At present the CAAC can deliver a limited service to people in and around the Pretoria area. As most of the work is done in the communities, services are accessible to some people in the community. The accessibility of this service can only increase with more manpower and similar centres throughout the country.

4.7 ACCESSIBILITY OF FUNDING: INVOLVING DONORS IN THE PROJECT AS AN INCENTIVE TO FURTHER FUNDING

As social security, medical aid and other financial support systems are inaccessible to the majority of the people the CAAC work with, the services and extension of AAC intervention will depend primarily on donors for funding. As mentioned before, no services are rendered free of charge. However, the fee charged by the CAAC is negotiable in order to ensure that it is within reach of all in need.

It is against this background that it becomes important for the CAAC to develop a close relationship with the donors to ensure a creative and meaningful development of services. There is also an important implicit benefit for the communities as they are able to establish contact with certain funding agencies through the CAAC. In this way they may also be able to get access to agencies that may help with the funding of particular projects.

SECTION 5: PHASE FOUR OF THE SERVICE MODEL: PRESENT AND FUTURE PERSPECTIVES

As mentioned in the introduction the aim of starting training at schools for SHPs was to develop cores of expertise in communities from where other projects could develop. Although one could argue that this approach is exclusive to CBR, it seemed necessary as an initial phase for the introduction of a new concept of intervention with SHPs.

Since August 1992 a major community project has been developed in the Themba area. This is a joint project of the CAAC, the Jubilee hospital, two churches and one school for SHPs from the area. The steering committee consists of community nurses, a community speech and hearing worker, two clergymen from local churches, two social workers as well as the principal of the local school for handicapped children. Two CAAC staff members are also included.

5.1 Aims of the community project

The aims of this project are, firstly, to identify SHPs who are not in school but at home; secondly, to do a needs analysis with parents of SHPs and, thirdly, to establish some support structure for parents whose children are kept at home.

5.2 Community action: Parents' Day

Various committee meetings were held since August 1992 and resulted in a "Day for parents of severely handicapped children". It was held on 8 August 1993 at Phelang school. An estimated 184 parents attended the function together with 60 children. Areas represented included: Themba, Maubane, Kekanastad, Ngobi, Mathibestad, Lebothogne, Marokolong, Stinkwater, Suurman, Ramotse and Muukubyane. (See **Appendix 9** for the programme and outline for Parents' Day.)

5.3 Involvement of a trained parent and teacher from Context 4

The involvement of two people from the core group of Context 4 in the day's programme has been most significant in encouraging parents in Themba. They could not only demonstrate how these strategies helped their children, but were also able to share information and knowledge in a very meaningful way. This experience proved that the development of core groups or success stories within communities can assist in the development of further projects.

5.4 Conclusions at the end of the day

Various needs were expressed and prioritized. Some of the most urgent needs related to core groups for SHPs as well as parent and community training so that

they can accept and work with these children. It was decided to create a support group for parents in each area by the end of September 1993. One representative of each group will then be on the central committee together with the steering committee. Although it became very clear to all involved that this was only a small beginning, the general level of commitment and concern among professionals and parents provided a most promising framework for the further development of this project.

5.5 Further support for the development and maintenance of core groups

In view of the vital role that core groups can play in the successful implementation of intervention strategies, the CAAC staff suggested that informal follow-up visits be increased to once a month at each training context in order to provide more support for core group development and maintenance. This suggestion was welcomed by all and dates were set for these visits.

SECTION 6: CLOSING REMARKS

This service can be described as a single section health service because it deals with the implementation of specific communication strategies. Although this could be negative in that it constitutes specialized intervention, the emphasis on networking with other social and health contexts as well as sharing responsibility for creating and maintaining these networks would ensure that AAC services would be accessible and meaningful to all those in need. This raises the issue of whether a selective technology approach (for example, focusing on AAC strategies) and a primary health care approach are mutually exclusive concepts as described by Rifkin and Walt (1986). The need for both these approaches is emphasized in the following: "[J]ust as much as we have an awareness of the need to alleviate pain and suffering by developing better technical facilities and more specialized services, so too is there a growing concern about the preponderance of infectious diseases that relate to poverty and squalor of a large section of our population" (Alant 1989:132). The importance of maintaining and developing specialized treatment and technological advancement can therefore not be disregarded in the process of providing primary health care for all. This suggests a creative interaction between externally-orientated involvement (e.g. the emphasis on technology or specialized treatment) and internally-orientated approaches (primary health care with a strong community-based focus) in order to develop a humanistic approach towards community-based rehabilitation. A humanistic perspective implies that people become conscious of the alternatives available to them, and become motivated to choose and produce the structures that will make these alternatives possible.

Community-based rehabilitation is a creative interaction between community members and professionals and is characterized by mutual understanding and respect, which are vital to any meaningful intervention. Mutual understanding implies ongoing critical appraisal of the models used by both therapist (or developer) and community. Certainly, in the CAAC experience the fundamentals in working with communities lie in the acknowledgement that "the view of the community - how communities view problems - and the solutions that make sense are often worlds apart from the views of institutions or professionals" (Grace 1991:1) and, similarly, that "no conception of development that aims to project solutions onto society can succeed in humanizing society" (Alant 1989:132).

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APPENDIX 1: QUESTIONNAIRE BEFORE TRAINING/VRAELYS VOOR OPLEIDING

		For official use/ *Vir kantoorgebruik*
1	Respondent no./*Respondent no.:* _____	V 1 ☐☐☐ 1-3
2	School/*Skool:* _____	V 2 ☐☐☐ 4-5
3	Sex/*Geslag:*	V 3 ☐ 6
	Male/*Manlik* ☐	
	Female/*Vroulik* ☐	
4	Relation of the respondent/*Verwantskap van respondent.* Please indicate with a cross opposite the correct answer/*Dui asseblief u keuse met 'n kruisie aan.*	V 4 ☐ 7
	– Parent/*Ouer* ☐	
	– Teacher/*Onderwyser* ☐	
	– Occupational therapist/*Arbeidsterapeut* ☐	
	– Speech therapist/*Spraakterapeut* ☐	
	– Friend of disabled/*Vriend van gestremde* ☐	
	– Class aide/*Klashulp* ☐	
	Other: Please explain/*Ander: Verduidelik asb.*	
	_____	
	_____	
5	What is your highest educational qualification?/*Wat is u hoogste opvoedkundige kwalifikasie?*	V 5 ☐ 8
	– Std 8 or lower/*St. 8 of laer* ☐	
	– Std 9-10/*St. 9-10* ☐	
	– 2-3 years after school/*2-3 jaar na skool* ☐	
	– 4 years after school/*4 jaar na skool* ☐	
	– 5 years after school/*5 jaar na skool* ☐	
6	How long have you been involved with disabled people?/*Hoe lank is u al betrokke by gestremdes?*	V 6 ☐ 9
	– Less than one year/*Minder as een jaar* ☐	
	– 1-2 years/*1-2 jaar* ☐	
	– 3-5 years/*3-5 jaar* ☐	
	– More than five years/*Meer as vyf jaar* ☐	

	For official use/ *Vir kantoorgebruik*
7 Have you had any special training to work with disabled people?/*Het u enige spesiale opleiding ontvang om met gestremde persone te werk?* – Yes/*Ja* ☐ – No/*Nee* ☐ If yes, what kind of training?/*Indien ja, watter tipe opleiding?* – In-service training/*Indiensopleiding* ☐ – Special diploma/*Spesiale diploma* ☐ – Special degree/*Spesiale graad* ☐	V 7 ☐ 10
8 What made you decide to attend this course?/*Wat het u laat besluit om hierdie kursus by te woon?* – I work (or have contact) with disabled people and feel I should get more information/*Ek werk (of het kontak) met gestremdes en voel ek benodig meer inligting* ☐ – I would like to improve my teaching skills/*Ek wil my onderrigvaardighede verbeter* ☐ – My work sent me/*My werk het my gestuur* ☐ – I am interested in alternative communication/*Ek is geïnteresseerd in alternatiewe kommunikasie* ☐	V 8 ☐ 11 ☐ 12 ☐ 13 ☐ 14
9 Do you think that people who cannot talk will ever be able to communicate with other people?/*Dink u dat mense wat nie kan praat nie ooit kan leer om met mense te kommunikeer?* – Yes/*Ja* – No/*Nee* – Uncertain/*Onseker*	V 9 ☐ 15
10 How do you think these people can be helped to communicate with others?/*Hoe dink u kan hierdie persone gehelp word om met ander te kommunikeer?* _____ _____	V 10 ☐☐ 16-17
11 Do you think these people will ever learn to read?/*Dink u hierdie persone sal ooit kan leer lees?* – Yes/*Ja* ☐ – No/*Nee* ☐ – Uncertain/*Onseker* ☐	V 11 ☐ 18

	For official use/ *Vir kantoorgebruik*
12 Do you think the use of non-verbal means of communication will prevent a person from talking?/*Dink u dat die gebruik van 'n nie-verbale manier van kommunikasie kan verhinder dat 'n persoon praat?* – Yes/*Ja* ☐ – No/*Nee* ☐ – Uncertain/*Onseker* ☐	V 12 ☐ 19
13 Who do you think should be responsible for teaching the person to use another way of communication?/*Wie dink u moet verantwoordelik wees om vir die persoon 'n ander kommunikasiewyse aan te leer?* Please mark all the relevant choices/*Merk asb. alle relevante keuses.* – Parents/*Ouers* ☐ – Teacher/*Onderwyser* ☐ – Speech therapist/*Spraakterapeut* ☐ – Occupational therapist/*Arbeidsterapeut* ☐ – Friends/*Vriende* ☐	V 13 ☐☐ 20-21
14 Why do you think the person who cannot talk is frequently passive in communication?/*Hoekom dink u is 'n persoon wat nie kan praat nie dikwels passief in kommunikasie?* Choose the most appropriate alternative. Mark only one answer/*Kies die mees toepaslike alternatief. Merk net een antwoord.* – Nobody expects him/her to participate/*Niemand verwag van hom/haar om deel te neem nie* ☐ – Too much pressure is put on him/her to communicate or to perform/*Te veel druk word op hom/haar geplaas om te kommunikeer en te presteer* ☐ – Person is not motivated/interested to communicate/ *Persoon is nie gemotiveerd/geïnteresseerd om te kommunikeer nie* ☐ – Environment is not sensitive to his communication needs and attempts/*Omgewing is nie sensitief vir sy kommunikasiebehoeftes en -pogings nie* ☐	V 14 ☐ 22
15 Have you ever heard of the use of symbol systems with a person who cannot talk?/*Het u al ooit gehoor van simboolsisteme wat gebruik kan word deur 'n persoon wat nie praat nie?* – Yes/*Ja* ☐ – No/*Nee* ☐ – Uncertain/*Onseker* ☐	V 15 ☐ 23

	For official use/ *Vir kantoorgebruik*
16 For which persons do you think a symbol system could be useful?/*Vir watter persone sou u sê kan 'n simboolsisteem wel van nut wees?*	V 16 ☐ 24
17 What have you heard about symbol systems and their use with people who cannot talk?/*Wat het u gehoor van simboolsisteme wat gebruik word deur mense wat nie praat nie?*	V 17 ☐ 25
18 What do you think a symbol system is?/*Wat dink u is 'n simboolsisteem?*	V 18 ☐ 26
19 In which way do you think a symbol system can help a person who cannot talk?/*Op watter manier dink u kan 'n simboolsisteem 'n persoon help wat nie kan praat nie?*	V 19 ☐ 27
20 Which skills do you think a person needs before he/she will be able to use a symbol system?/*Watter vaardighede dink u benodig 'n persoon voordat hy/sy 'n simboolsisteem sal kan gebruik?*	V 20 ☐ 28

	For official use/ *Vir kantoorgebruik*
21 Can you use objects to communicate?/*Kan 'n mens objekte gebruik om mee te kommunikeer?* – Yes/*Ja* – No/*Nee* – Uncertain/*Onseker* – Explain please/*Verduidelik asb.* _____ _____ _____	V 21 ☐ 29
22 Do you think people can use pictures to communicate?/*Dink u 'n mens kan deur middel van prente kommunikeer?* – Yes/*Ja* – No/*Nee* – Uncertain/*Onseker* – Explain please/*Verduidelik asb.* _____ _____ _____	V 22 ☐ 30
23 How does a symbol system differ from pictures?/*Hoe verskil 'n simboolsisteem van prente?* _____ _____ _____	V 23 ☐ 31
24 Do you think the use of a symbol system can prevent a person from talking?/*Dink u dat die gebruik van 'n simboolsisteem kan verhinder dat 'n persoon praat?* – Yes/*Ja* – No/*Nee* – Uncertain/*Onseker* – Why do you say so?/*Hoekom sê u so?* _____ _____ _____	V 24 ☐ 32

	For official use/ *Vir kantoorgebruik*
25 What do you think will be the biggest problem that the person who uses a symbol system for communication will have?/*Wat dink u is die grootste probleem wat 'n persoon sal ondervind by die gebruik van 'n simboolsisteem vir kommunikasie?*	V 25 ☐ 33
26 What do you think are the necessary steps that need to be considered in teaching somebody to use a symbol system? Where should one start?/*Wat dink u is noodsaaklike stappe wat oorweeg moet word wanneer 'n persoon geleer word om 'n simboolsisteem te gebruik? Waar moet 'n mens begin?*	V 26 ☐ 34
27 What do you think a communication board is?/*Wat dink u is 'n kommunikasiebord?*	V 27 ☐ 35
28 What do you think are the most important points to remember when making a communication board for a person?/*Wat sou u sê is die belangrikste punte om te onthou by die maak van 'n kommunikasiebord vir 'n persoon?*	V 28 ☐ 36
29 What do you expect to gain from this training session?/*Wat verwag u om uit hierdie opleidingsessie te put?*	V 29 ☐ 37

APPENDIX 2: QUESTIONNAIRE AFTER TRAINING/VRAELYS NA OPLEIDING

		For official use/ *Vir kantoorgebruik*
1	Respondent no./*Respondent no.:* _____	
2	Do you think that people who cannot talk will ever be able to communicate with other people?/*Dink u dat mense wat nie kan praat nie ooit kan leer om met mense te kommunikeer?* – Yes/*Ja* ☐ – No/*Nee* ☐ – Uncertain/*Onseker* ☐	V 30 ☐ 38
3	How do you think these people can be helped to communicate with others?/*Hoe dink u kan hierdie persone gehelp word om met ander te kommunikeer?* _____ _____ _____	V 31 ☐☐ 39-40
4	Why do you think it is important to teach a person who cannot talk to use a symbol system?/*Hoekom sou u sê is dit belangrik om 'n persoon wat nie kan praat nie te onderrig in die gebruik van 'n simboolsisteem?* _____ _____ _____	V 32 ☐ 41
5	For which persons do you think a symbol system could be useful?/ *Vir watter persone sou u sê kan 'n simboolsisteem wel van nut wees?* _____ _____ _____	V 33 ☐ 42
6	Which skills do you think a person needs before he or she will be able to use a symbol system?/*Watter vaardighede dink u is belangrik vir 'n persoon om te hê voordat hy of sy 'n simboolsisteem sal kan gebruik?* _____ _____ _____	V 34 ☐ 43

	For official use/ *Vir kantoorgebruik*		
7 What is a symbol system?/*Wat is 'n simboolsisteem?*	V 35	☐	44
8 How does a symbol system differ from pictures?/*Hoe verskil 'n* simboolsisteem van prente?	V 36	☐	45
9 What do you think are the necessary steps that need to be considered in teaching somebody to use a symbol system? Where should one start?/*Wat dink u is die noodsaaklike stappe wat oorweeg moet word wanneer 'n persoon geleer word om 'n simboolsisteem te gebruik? Waar moet 'n mens begin?*	V 37	☐	46
10 What do you think a communication board is?/*Wat dink u is 'n* kommunikasiebord?	V 38	☐	47
11 What do you think are the most important points to remember when making a communication board for a person?/*Wat sou u sê is die belangrikste punte om te onthou wanneer 'n mens 'n kommunikasiebord maak?*	V 39	☐	48

	For official use/ *Vir kantoorgebruik*
12 Who should be responsible for teaching a person to use another way of communication?/*Wie dink u behoort verantwoordelik te wees vir onderrig in die gebruik van 'n ander manier van kommunikasie?* _____ _____ _____	V 40 ☐☐ 49-50
13 Do you think the use of a symbol system can prevent a person from talking?/*Dink u dat die gebruik van 'n simboolsisteem kan verhinder dat 'n persoon praat?* – Yes/*Ja* ☐ – No/*Nee* ☐ – Uncertain/*Onseker* ☐ – Why do you say so?/*Hoekom sê u so?* _____ _____ _____	V 41 ☐ 51
14 Do you think a person who cannot talk can learn to read at all?/*Dink u dat 'n persoon wat nie kan praat nie kan leer lees?* – Yes/*Ja* ☐ – No/*Nee* ☐ – Uncertain/*Onseker* ☐	V 42 ☐ 52
15 Why do you think people who cannot talk are often passive in communication?/*Hoekom dink u is mense wat nie kan praat nie dikwels passief in kommunikasie?* _____ _____ _____	V 43 ☐ 53
16 What do you think will be the biggest problem that the person who uses a symbol system for communication will have?/*Wat dink u is die grootste probleem wat 'n persoon sal ondervind by die gebruik van 'n simboolsisteem vir kommunikasie?* _____ _____ _____	V 44 ☐ 54

	For official use/ *Vir kantoorgebruik*
17 In which way do you think a symbol system can help a person who cannot talk?/*Op watter manier dink u kan 'n simboolsisteem 'n persoon wat nie kan praat nie help?*	V 45 ☐ 55
18 What are the most obvious insights that you have gained from this training session?/*Wat is die belangrikste insigte wat u by hierdie opleidingsessie verkry het?*	V 46 ☐ 56
19 Recommendations for the improvement of training sessions/*Aanbevelings vir die verbetering van opleidingsessies.*	V 47 ☐ 57

APPENDIX 3: ANALYSIS OF FOLLOW-UP VISITS

Institution: _____

Date: _____

Rating scales:

Frequency: 1 = never
2 = sometimes
3 = mostly
4 = always/all the time

Quality: 1 = limited
2 = some areas fine
3 = most areas fine
4 = extensive

DESCRIPTION OF AAC IN CONTEXT

A. AAC CORE GROUP

Yes	
No	
Not structured	

Responsible person: _____

Names: _____

_____

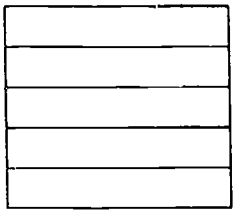
_____

B. STAFF/CORE GROUP ANALYSIS OF AAC USE IN CONTEXT

1. Evaluation of progress in AAC

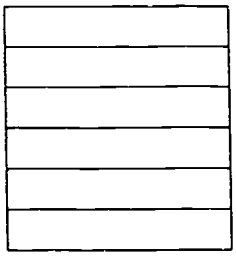
1.1 General evaluation by core group

No progress
Limited progress
Progress fine in some areas
Progress fine in most areas
Good progress



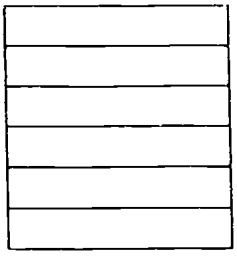
1.2 Progress in relation to specific people

Parent involvement: Mother
Parent involvement: Father
Siblings
Other significant others, e.g. grandparents
Teacher-child interaction
Peer interaction



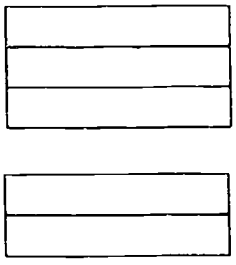
1.3 Motivation of people in environment

Client him/herself
Parents: Mother
Father
Siblings
Other significant others: Grandparents
Teacher



2. Teachers' orientation to problems

2.1 Individual client orientated
2.2 Group orientated
2.3 Specificity of problems (How well are the problems defined?)
- In relation to individual cases
- In relation to the group



3. Fact finding

3.1 How much additional information was obtained about SHP since our last contact?

3.2 How much fact-finding was done on problems previously identified? Analysis of the situational aspect.

4. Prioritizing of needs

4.1 Needs identification at present

4.2 To which extent are needs prioritized by the core group?

4.3 Relevance of priorities in terms of intervention

5. Resources

5.1 External

5.1.1 Use of external resources

- Financial
- Manpower
- Facilities

5.1.2 Awareness of potential resources

- Community
- Government infrastructure
- Private institutions

5.1.3 Motivation to use external resources

5.2 Internal

5.2.1 Use of internal resources

- Knowledge
- Skills
- Institutional structure
- Existing service
- Financial
- Facilities

5.2.2 Motivation to use internal resources

---

6. Action/Implementation

6.1 Frequency of implementation (cases subjected to intervention)

6.2 Nature of implementation

6.2.1 Acquisition of technology
- Low
- High

6.2.2 Function of teaching symbols
- For communication
- Facilitate literacy

6.2.3 Attention to prerequisite skills in AAC intervention

6.2.4 The use of aided systems

The use of unaided systems

6.2.5 The use of multicomponent communication

7. Evaluation of implementation

7.1 Are there formulated criteria for evaluating success?

Yes/No

8. Further training needs/follow-ups

8.1 Staff members

8.1.1 More knowledge

8.1.2 More skills training

8.1.3 Training of people in the infrastructure

8.2 Individual cases

_____

_____

_____

_____

9. Summary of interaction with core group by CAAC staff

9.1 General impression of AAC in context

- Knowledge of AAC of core group
- Attitude re AAC in core group
- Core group's implementation of skills

9.2 Further needs for training

- Knowledge
- Skills in teaching
- Working with infrastructure
- Use of technology
- Attitudinal problems

9.3 General comments on decision-making style

_____

_____

_____

_____

9.4 Conclusive comments: Recommendations for next follow-up

_____

_____

_____

APPENDIX 4: AAC INITIAL TRAINING SESSION PROGRAMME

ONE-DAY COURSE: INTRODUCTION TO AUGMENTATIVE AND ALTERNATIVE COMMUNICATION

PROGRAMME

Aim:

To expose staff and parents to the use of AAC systems in teaching and communication. The purpose of this session is to introduce people to the concept of AAC. This initial course will not be adequate preparation for the implementation of AAC strategies. Further support for implementation will be necessary.

Objectives:

- To give a summary of why AAC strategies are important for use with severely disabled people
- To identify the different problems relating to communication with severely disabled children
- To discuss briefly different symbolic and gestural systems
- To discuss certain ways of implementing these systems in a school and home context
- To discuss the importance of the establishment of an AAC core group in (the specific school) to ensure further follow-ups and exchange of information between CAAC and the (school) staff and parents.

Time schedule

8h00	: Registration
8h30-9h30	: Introduction: What is Augmentative and Alternative Communication (AAC)?
9h30-10h30	: Problem statement: What are the problems confronting us when working with the severely disabled person?
10h30-11h00	: What can be done about these problems? Role play
11h00-11h30	: TEA
11h30-12h30	: How can these strategies be implemented? The importance of establishing a core group for AAC at the Centre
12h30-13h00	: Filling in of questionnaire after training

OUTLINE FOR ONE-DAY COURSE ON AAC STRATEGIES

1. INTRODUCTION TO AUGMENTATIVE AND ALTERNATIVE COMMUNICATION

What is Augmentative and Alternative Communication (AAC)?

- Use of less frequently used modes and channels of communication in order to facilitate the disabled person's functioning in the community

Why are AAC strategies so important?

- To enable the individual with severe speech impairment to enter or return to the community as a contributing member
- To stimulate a person's cognitive development in spite of inability to speak
- To prepare the individual for literacy
- Focus on AUGMENTATIVE and not only ALTERNATIVE strategies. Continuum of communication
- Civil right of the disabled to control his own life

Who can benefit from AAC strategies?

- Concept of "limited verbal output"
- Person cannot communicate basic needs verbally
- Etiologies of people with severe speech problems

Multicomponent communication

- That the person communicates is important, not so much HOW he communicates
- Way of communication is not a goal in itself, but a tool in facilitating interaction
- Most effective communication = system that gives an individual access to different kinds of communication contexts

Basic principles

- Best chance for development of speech = happy person who is not frustrated and emotionally upset and withdrawn
- Multicomponent communication system

- Person must participate/initiate, NOT just respond
- Must not dominate communication with disabled people
- Entrance into a symbol system = best preparation for literacy
- Independence of the individual: social involvement/control over his/her own life

Classification of AAC systems

- Unaided
- Aided

* **Unaided:**

  Gestural systems:

  * Sign languages: ASL
  * Educational systems: Makaton, SA gestures, SEE
  * Gestural language codes: cued speech, finger spelling
  * Other gestural systems: natural, mimic

* **Aided:**

  Symbol systems:

  * Object communication
  * Representational systems: Bliss, Makaton, Rebuses, Picsyms
  * Abstract symbol systems: Premack
  * Symbolic language codes: normal orthography, braille

2. PROBLEM STATEMENT

Role play:

Two situations: home and school

Aim: to identify communication problems in these two contexts

- Expectations
- Skills: grown-ups and child
- Opportunities for communication

3. WHAT CAN BE DONE ABOUT THE PROBLEMS IDENTIFIED?

Role play:

- To foster more realistic expectations of the child
- To improve communication skills: grown-ups and the child
- To use more opportunities for communication

4. HOW DO YOU TEACH THE CHILD TO COMMUNICATE?

The importance of positioning in communication

(i) **Skills necessary for using AAC**

- Establish a desire to communicate
- Eliminate interfering behaviours
- Improving attention: Physical
  Visual
- Increasing cognitive skills: Functional object use
  Object permanence
  Cause-effect
- Imitation: Motor
  Pointing
- Verbalization

(ii) **The use of symbols for communication**

- How to teach a child symbols for communication
- Identification of
  object x object
  picture x object
  picture x picture
  picture x symbol
  symbol x symbol

(iii) **The communication board**

- How to organize symbols
- Newsbook
- Labelling the school and environment

5. THE IMPORTANCE OF VISUAL PERCEPTION AND PLAY IN AAC

(i) **Visual perception in context**

- Matching symbols: teaching symbols
- Games: dominoes, memory
- Cutting/craft: making a hat
- Using symbols to facilitate

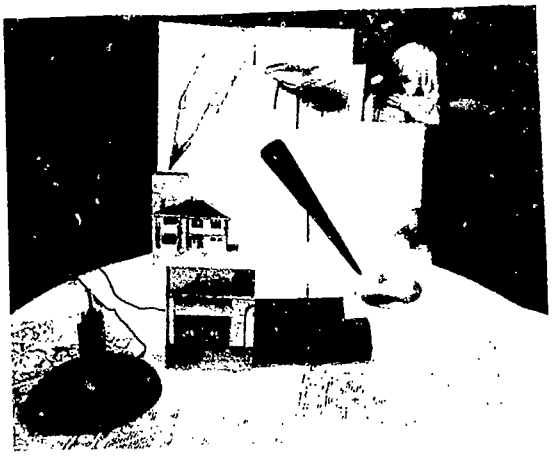
(ii) **The importance of toys**

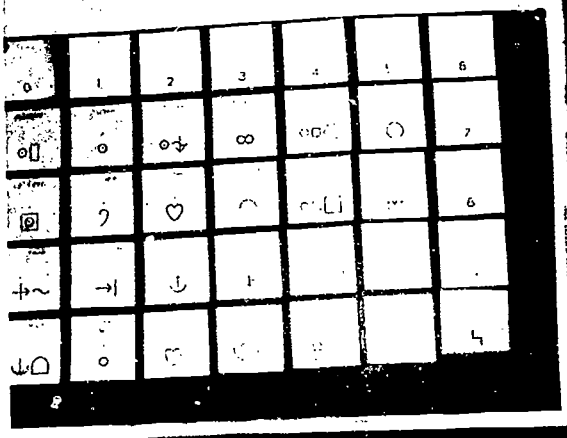
- Different kinds of toys that can be used

6. HOW CAN AAC STRATEGIES SUCCESSFULLY BE IMPLEMENTED?

- How can a system be implemented and realistically maintained?
- The importance of an interest group to facilitate AAC implementation
- The involvement of parents, teachers and all other interested parties
- The role of the CAAC in implementation.

APPENDIX 5: EXAMPLES OF LOW TECHNOLOGY USED FOR COMMUNICATION





APPENDIX 6: INTERVENTION SHEET IN THE CLASSROOM

SCHOOL: Context 4

CAAC TEAM: A.M. Wium & J. Bornman

DATE	AIMS	RESULTS
19-03-1993	Observe the class room interaction	Children are very passive and unresponsive. Teacher does everything in class, and works on name-giving in each activity. Children do not know each other's names.
29-04-1993	Improvement and encouragement of peer interaction	Obvious improvement. Children requested participation and inclusion in games. Children have spontaneous peer interaction (especially during mealtime). Know each other's names through the symbols pasted on chairs and tables. Expand name-giving to body image activities.
13-05-1993	Awareness of body image and teaching of Blissymbols for body parts	Teacher very enthusiastic because the children showed great interest in this activity. Two children are skilled in body parts and identified the symbols correctly. This activity needs more drilling by the teacher in order to facilitate carry-over.
03-06-1993	Maintenance of previous symbols for body parts and expansion to verbs by using action indicator	All the body parts are referred to by using symbols. Children are more verbal, and ask to be included in games. Whole class able to read short sentences on flashcards with Blissymbols. Teacher very enthusiastic, but need more training on how to expand to other contexts.

APPENDIX 7: TEACHER'S EVALUATION OF TRAINING BY THE CAAC*

What did you learn from the interaction with the CAAC team?
I received guidance with regard to methods which encourage pupil participation and involvement.

How do you think your skills as a teacher improved?
I've changed my style with regard to teaching.

What do you like most about working with the CAAC team?
I like the Bliss programme because children are taught to recd independently.

Do you think the children in your class benefited from these sessions? Please explain.
Yes. They are able to identify their names, and pupils become very active. They can read because of Bliss.

How many children in your class improved during this time? Please give details of how they improved.
All the children improved their listening skills and reading skills.

Overall rating: How would you rate the CAAC informal training sessions?

1	2	3	4	X
Very poor	Poor	Average	Good	Very good

---

* The sentences in italics represent the responses of one person.

APPENDIX 8: HOD's* EVALUATION OF TRAINING BY THE CAAC

What did you learn from the interaction with the CAAC team?
*I have learnt a lot of teaching methods and teacher-child interaction.***

How do you think your skills as a teacher have improved?
Awareness of social skills involving children by allowing them to participate in lessons.

What do you like most about working with the CAAC team?
I gain methods on how to deal with S.M.H. child and they are willing to offer their services.

Do you think the children in your class benefited from these sessions? Please explain.
Yes, there were these children who did not communicate, they can now communicate – and use more than five words. They are more relaxed and they do approach strangers.

How many children in your class improved during this time? Please give details of how they improved.
The whole class improved. They can all communicate, associate, socialise, match and participate in a given situation.

Overall rating: How would you rate the CAAC informal training session?

1	2	3	4	5
Very poor	Poor	Average	Good	Very good X

---

* HOD: Head of department.

** The sentences in italics represent the responses of one person.

APPENDIX 9: PHOTOGRAPHS OF THE TRAINING PROCESS

APPENDIX 10: PROGRAMME AND OUTLINE FOR PARENTS' DAY: THEMBA, AUG. 1993

JUBILEE HOSPITAL

PROGRAMME/PROGRAM

Modula setilo: Sr Mosimane
Chairperson: Sr Mosimane

1. *THAPELO*/PRAYER
2. *KAMOGELO*/WELCOME
3. *POLELO: Go amogela ngwana*
   TALK: Accepting your child
4. *POLELO YA SETLHOPANA: Ditlhokego*
   GROUP DISCUSSION: Needs and concerns
6. *SE SEKA DIRWANG*
   INFORMATION ON WHAT CAN BE DONE
   * *Ngwana o o ka iletsang dilo*
     Self-help skills
   * *Ngwana o o tshamekang/Ngwana o ka kgonang go boledisana le wena*
     Play skills/Communication skills

Motsadi wa ngwana o sa itekanelang
Parent and child

7. *POLELO YA SETTHOPANA: Go tla etswang*
   GROUP DISCUSSION: Future action and goals
8. *TSHOBOLOKANYO YA POLELO*
   SHORT SUMMARIES OF DISCUSSION
9. *TSHWALO*
   CONCLUSIONS
10. *THAPELO*
    PRAYER

FA O TLHOKA THUSSO

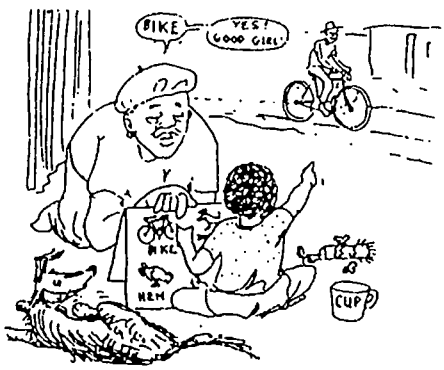
Sr Mosimane
Jubilee Hospital

NGWANA O ITUMETSENG KE O JANG?
WHAT IS A HAPPY CHILD?

* *Ke ngwana o o ratwang.*
A child who is loved.

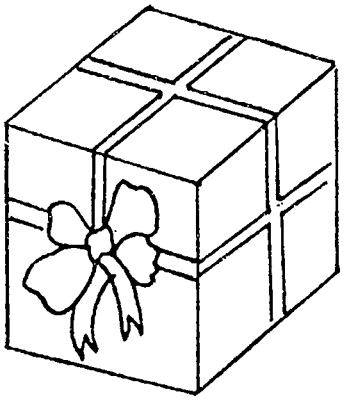
* *Ke ngwana o o ka ikeletsang dilo.*
A child who can help himself.

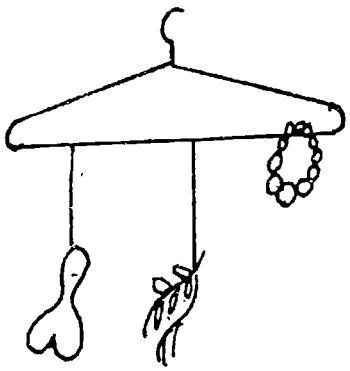
* *Ke ngwana o ka tshamekang.*
A child who can play.

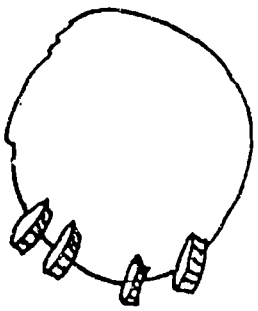


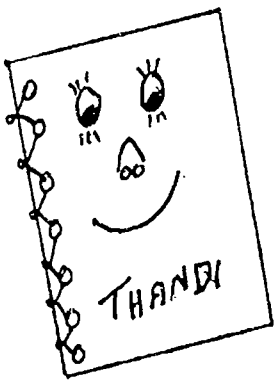
* *Ke ngwana o ka kgonang go boledisana le wena.*
A child who can communicate.

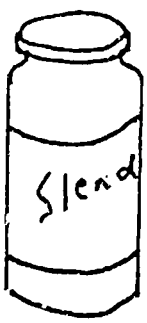
DITSHAMEKISI/TOYS

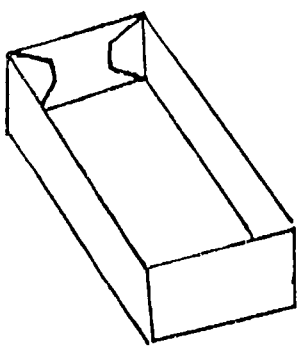


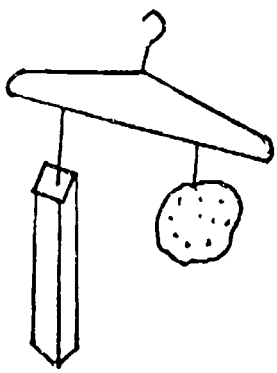












ISBN 0-7969-1542-3